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# CONSOLIDATED TRANSLATION SURVEY

Number 148

Through 30 April 1970

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Washington, D.C. 20505

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CONSOLIDATED TRANSLATION SURVEY

FOR APRIL 1970

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## CONSOLIDATED TRANSLATION SURVEY

### PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identifications of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (\*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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Requests for copies of published projects should be made direct to the designated producing organization.

Addresses of producers to follow:

ACIC - Aeronautical Chart and Information Center  
(see CFSTI)

ACSI - (see DIA)

AEC - Atomic Energy Commission  
(see CFSTI)

AGU

American Geophysical Union  
Suite 506  
1145 19th Street, N.W.  
Washington, D. C. USA 20036

AIP

American Institute of Physics  
335 East 45th Street  
New York, New York 10017

ANL - Argonne National Laboratory, Illinois  
(see AEC)

APL/JHU

Applied Physics Laboratory  
The Johns Hopkins University  
8621 Georgia Avenue  
Silver Spring, Maryland 20910

BCF - Bureau of Commercial Fisheries  
(see Depart of Interior)

BISI

British Iron and Steel Industry Translation Service  
The Iron and Steel Institute  
4 Grosvenor Gardens  
London, S. W. 1, England

BNL (see AEC)

CB

Consultants Bureau  
(see Plenum Press)

CEGB

Central Library  
Central Electricity Generating Board  
Room 601, Sudbury House  
15 Newgate Street  
London, E. C. 1.

CESTI

Clearinghouse for Federal Scientific and  
Technical Information  
Port Royal and Braddock Roads  
Springfield, Virginia 22151

CIT

Columbia Technical Translations  
5 Vermont Avenue  
White Plains, New York 10600

DDC

Defense Documentation Center  
Cameron Station  
Alexandria, Virginia 22314

Department of Interior

Dept of Interior  
Room 8015  
Branch of Foreign Fisheries (Translations)  
Division of International Affairs  
Bureau of Commercial Fisheries  
Washington, D. C. 20240

DIA

Defense Intelligence Agency  
Washington, D. C. 20301

ETC

European Translations Centre  
Doelenstraat 101, Delft,  
The Netherlands

FP

Faraday Press, Inc.  
84 Fifth Avenue  
New York, N. Y. USA 10011

FSTC - Foreign Science and Technology Center  
(see Defense Documentation Center)

FTD - Foreign Technology Division  
(see Defense Documentation Center)

HH

Henry Bratcher Technical Translations  
P. O. Box 157  
Altadena, California 91001

JPRS

U. S. Department of Commerce  
Clearinghouse for Federal Scientific  
and Technical Information  
Port Royal and Braddock Roads  
Springfield, Virginia 22151

LASLUC - (see AEC)

Maritime Admin

Maritime Administration  
Office Services  
GAO,  
5th and G Streets, N. W.  
Washington, D. C.

MATT - (see AEC)

NASA

National Aeronautics and Space Administration  
1512 H Street, N. W.  
Washington, D. C. 20546

NavShips

Department of the Navy  
Naval Ship Systems Command  
Washington, D. C. 20360

NBS

National Bureau of Standards  
ATTN: Dr. Henry Birnbaum  
Room 314, South Building  
Washington, D. C.

NIC

Commander, Naval Intelligence Command  
Naval Intelligence Command Headquarters  
NIC-133E  
Washington, D. C. 20350

NLL

National Lending Library  
For Science and Technology  
Boston Spa, Yorkshire, England

NMS

Navy Medical School  
National Naval Medical Center  
Bethesda, Maryland 20014

NOO

U. S. Naval Oceanographic Office  
Code 440  
Washington, D. C. 20390

NRL

Naval Research Laboratory  
Washington, D. C. 20390

NSJ (see AEC)

NSRDC

Naval Ship Research and Development Center  
Washington, D. C. 20007

ORNL - Oak Ridge National Laboratory  
(see AEC)

OSA

Optical Society of America, Inc.  
American Institute of Physics  
335 East 45th Street  
New York, New York, USA 10017

PP

Pergamon Press, Inc.  
44-01 21st Street  
Long Island City, N. Y. 11101

PS

Primary Sources  
11 Bleecker Street  
New York, New York, USA 10012

S/E - Scripta Electronics  
S/P - Scripta Publishing

Scripta Publishing Corporation  
1511 K Street N. W.  
Washington, D. C. 20005

SCI

Scientific Information Consultants, Limited  
661 Finchley Road  
London N. W. 2, England

SLAC - Stanford Linear Accelerator Center  
(see AEC)

Survey of China Mainland Magazines

Survey of China Mainland Magazines  
American Consulate General  
Hong Kong

Survey of China Mainland Press

Survey of China Mainland Press  
American Consulate General  
Hong Kong

UCRL

University of California  
Lawrence Radiation Laboratory  
Livermore, California  
(also see AEC)

USSR  
1970

Services Minister Discusses Industry Developments,  
by A. Gandurin, 7 pp.  
RUSSIAN, per, Agitator, Moscow, No 23, Dec 1969,  
pp 23-25.  
JPRS 49955

Final Year of Eighth Five-Year Plan Reviewed,  
by N. Iybakov, 10 pp.  
RUSSIAN, per, Agitator, Moscow, No 1, 1970, pp 27-  
31.  
JPRS 50110

Report by Finance Minister of Turkmen SSR, by  
V. Ekiyev, 11 pp.  
RUSSIAN, radio, Ashkhabad Radio, 0530 GMT, 26 Dec  
1969.  
JPRS 50072

Report by GosPLAN Chairman of Turkmen SSR, by  
A. Fayliyev, 13 pp.  
RUSSIAN, radio, Ashkhabad Radio, 0530 GMT, 26 Dec  
1969.  
JPRS 50072

Report by GosPLAN Chairman of Azerbaydzhan SSR, by  
M. I. Allahverdiv, 10 pp.  
RUSSIAN, np, Bakinskiy Rabochiy, Baku, 26 Dec 1969,  
pp 1, 2.  
JPRS 50072

Report by First Deputy Finance Minister of  
Azerbaydzhan SSR, by B. G. Bakhshaliyev, 5 pp.  
RUSSIAN, per, Bakinskiy Rabochiy, Baku, 26 Dec  
1969, p 3.  
JPRS 50072

Reserves to Serve in Five-Year Plan, by  
R. Bakhtamov, A. Lerner, 13 pp.  
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10 Feb 1970, p 2.  
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Uniformity of Export Documents Proposed, by  
A. Borozov, N. Ageyeva, 5 pp.  
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New Enterprise Balance Structure Proposed,  
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RUSSIAN, per, Bukhgalterskiy Uchet, Moscow,  
No 12, 1969, pp 25-28.  
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Construction in First Half of 1969 Reviewed,  
by A. V. Katvoyev, 6 pp.  
RUSSIAN, per, Byulleten' Stroitel'noy Tekhniki,  
Moscow, No 12, 1969, pp 21-23.  
JPRS 50010

Republic Gosstroy Activities Considered, by  
S. I. Golovkin, E. P. Parosyan, 9 pp.  
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Moscow, No 12, 1969, pp 3-11.  
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Account Keeping in Food Industry Explained,  
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RUSSIAN, per, Den'gi i Kredit, Moscow,  
Sept 1969, pp 22-28.  
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Role of Credit in Developing Udmurt Economy,  
by A. Markov, 10 pp.  
RUSSIAN, per, Den'gi i Kredit, Moscow,  
No 11, 1969, pp 3-9.  
JPRS 50187

Improvements of Economic Analysis Proposed,  
by S. Barngol'ts, 14 pp.  
RUSSIAN, per, Den'gi i Kredit, Moscow, No 11,  
1969, pp 10-19.  
JPRS 50187

Gosbank Influence on Material Stocks Analyzed,  
by A. Kozhavnikov, 8 pp.  
RUSSIAN, per Den'gi i Kredit Moscow, no 11, 1969  
pp. 20-25.  
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GOSBANK Targets for 1970 Outlined, by  
M. Sveshnikov, 12 pp.  
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pp 3-12.  
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Sources of Enterprise Working Capital Contrasted,  
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Book on Circulation of Goods and Money Under  
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8 pp.  
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Jan 1970, p 9.  
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Explained, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,  
No 6, Feb 1970, p 16.  
JPRS 49959

Snechkus Surveys Lithuanian Economy, by  
A. Snechkus, 10 pp.  
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No 7, 7 Feb 1970, pp 3-4.  
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Social Aspects of Scientific-Technical Progress  
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Ukrainian Knitwear Industry to be Developed, by  
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Kolkhoz Labor Productivity and Wages Analyzed,  
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Kiev, No 9, 1969, pp 57-61.  
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Light Industry Price Formation Discussed,  
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Kiev, Jan 1970, pp 8-18.  
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1970, pp 5-9.  
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Decree Ties Bonuses Closer to Productivity, 5 pp.  
RUSSIAN, per, Gosudarstvennyy Komitet Sovetskikh Ministrov SSSR po Voprosam Truda i Zarabotnoy Platy -- Byulleten, Moscow, No 11, 1969, pp 3-7.  
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Economic Reform in Rail Transport Discussed, by A. Abramov, 12 pp.  
RUSSIAN, np, Gudok, Moscow, 13 Dec 1969, p 2.  
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Railroad Administrative Personnel to be Reduced, by I. Yezhkin, 5 pp.  
RUSSIAN, np, Gudok, Moscow, 13 Jan 1970, p 2.  
JPRS 50183

Report by GOSPLAN Chairman of Kazakh SSR, by K. K. Ketebayev, 9 pp.  
RUSSIAN, np, Kazakhstanskaya Pravda, Alma-Ata, 26 Dec 1969, pp 1,2.  
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Report by Finance Minister of Kazakh SSR, by I. L. Kim, 5 pp.  
RUSSIAN, np, Kazakhstanskaya Pravda, Alma-Ata, 26 Dec 1969, pp 2,3.  
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Report by GOSPLAN Chairman of Tadzhik SSR, by K. M. Makhkanov, 11 pp.  
RUSSIAN, np, Kommunist Tadzhikistana, Dushanbe, 24 Dec 1969, pp 1,2.  
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Report by Finance Minister of Tadzhik SSR, by  
M. V. Vaysov, 9 pp.  
RUSSIAN, np, Kommunist Tadzhikistana, Dushanbe,  
24 Dec 1969, pp 2, 3.  
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Suggestions Made to Fight High Labor Turnover, 6 pp.  
RUSSIAN, np, Komsomol'skaya Pravda, Moscow, 1 Nov  
1969, p 2.  
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Discussion of Labor Turnover Summed Up, by  
A. Myasnikov, 5 pp.  
RUSSIAN, np, Komsomol'skaya Pravda, Moscow,  
30 Dec 1969, p 2.  
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Uninterrupted Fuel Supply in Winter Urged,  
by A. Borisov, 9 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye  
Snabzheniye, Moscow, Nov 1969, pp 1-6.  
JPRS 50160

Methods of Computing Equipment Balance Dis-  
cussed, by B. Borovskikh, 10 pp.  
RUSSIAN, per, Material'no-Tekhnicheskoye  
Snabzheniye, Moscow, Nov 1969, pp 18-24.  
JPRS 50160

Forecasting Demand for Metal Products Urged,  
by I. Fritsker, 7 pp.  
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Snabzheniye, Moscow, Nov 1969, pp 25-29.  
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by K. Gloyeva, 6 pp.  
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Snabzheniye, Moscow, Nov 1969, pp 87-89.  
JPRS 50160

Cooperation in the Food Industry Discussed,  
by Z. Shterba, 8 pp.  
RUSSIAN, per, Mezhdunarodnyy Sel'skokhozyay-  
stvennyy Zhurnal, Moscow, No 6, 1969, pp 103-105.  
JPRS 50152

Conference on Progress in CEMA Forestry, by  
V. Zubarev, 5 pp.  
RUSSIAN, per, Mezhdunarodnyy Sel'skokhozyay-  
stvennyy Zhurnal, Moscow, No 6, 1969, pp 105-107.  
JPRS 50152

Economic Cooperation Among Socialist Countries,  
by Yu. Medvedkov, 17 pp.  
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye,  
Moscow, No 12, 1969, pp 27-37.  
JPRS 49921

Moldavian Dairy Industry Increases Output,  
by N. G. Konvalova, 6 pp.  
RUSSIAN, per, Molochnaya Promyshlennost',  
Moscow, No 11, 1969, pp 3-5.  
JPRS 50183

Improving Material-Technical Supply of Moscow  
Enterprises, by I. I. Fetisov, 7 pp.  
RUSSIAN, np, Moskovskaya Pravda, Moscow, 24 Dec  
1969, p 2.  
JPRS 49921

The USSR National Economy in 1967 (Statistical  
Yearbook), Part III, 319 pp.  
RUSSIAN, bk, Narodnoye Khozyaystvo SSSR v 1967  
godu, 1008 pp.  
JPRS 49734-3

Lenin's Views on Management Discussed, by  
A. Birman, 30 pp.  
RUSSIAN, per, Novyy Mir, Moscow, Dec 1969,  
pp 173-191.  
JPRS 49959

Labor Productivity in Meat Industry Appraised,  
by M. Barbashin, 9 pp.  
RUSSIAN, per, Nyasnaya Industriya SSSR, Moscow,  
No 9, Sept 1969, pp 1-5.  
JPRS 49955

Procedures Under Economic Reform Described, by  
F. Potapenko, V. Kovalenko, 7 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 11,  
1969, pp 56-60.  
JPRS 49955

Urban Planning, Industry Location Discussed,  
by M. Mirtchyan, 12 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,  
No 12, 1969, pp 36-45.  
JPRS 50156

USSR  
Economic Council

Workers' Vocational Training Discussed, by  
Yu. Novgorodskiy, N. Khaykin, 10 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,  
No 1, Jan 1970, pp 19-26.  
JPRS 50155

Freight Transport Requires Development, by  
N. Gurelov, 6 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,  
Jan 1970, pp 79-83.  
JPRS 50010

Shortcomings in Youth Vocational Training  
Described, by M. Nakhankova, 5 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow,  
No 1, Jan 1970, pp 85-88.  
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Effects of Scientific-Technical Revolution  
Cited, by E. Gorbunov, 17 pp.  
RUSSIAN, per, Politicheskoye Samoobrazovaniye,  
Moscow, No 12, 1969, pp 28-36.  
JPRS 50160

Profit-Making and Cost Accounting Discussed,  
by Yu. Trunov, Ye. Chernov, 14 pp.  
RUSSIAN, per, Politicheskoye Samoobrazovaniye,  
Moscow, No 12, 1969, pp 67-74.  
JPRS 50160

High Quality Production Cited, Applauded, by  
Ya. Kotlikov, 9 pp.  
RUSSIAN, per, Politicheskoye Samoobrazovaniye,  
Moscow, No 12, 1969, pp 97-101.  
JPRS 50160

Consumer Goods Production in Penza Criticized,  
by A. Krivel', 5 pp.  
RUSSIAN, np, Pravda, Moscow, 22 Nov 1969, p 2.  
JPRS 49955

Shortcomings in Machine Tool Industry Reported,  
by V. Parfenov, N. Mironov, 5 pp.  
RUSSIAN, np, Pravda, Moscow, 21 Dec 1969, p 2.  
JPRS 50110

Proper Utilization of Mineral Resources, by  
N. Mel'nikov, A. Agoshkov, 5 pp.  
RUSSIAN, np, Pravda, Moscow, 27 Jan 1970, p 2.  
JPRS 50108

USSR  
Economic Council

Problems of Siberian Oil Fields Discussed,  
by A. Murzin, 6 pp.  
RUSSIAN, np, Pravda, Moscow, 12 Feb 1970,  
p 2.  
JPRS 50178

Report by GOSPLAN Chairman of Ukrainian SSR, by  
I. A. Kozenko, 5 pp.  
RUSSIAN, np, Pravda Ukrainy, Kiev, 26 Dec 1969,  
p 2.  
JPRS 50072

Results of Economic Reform Seen at Kharkov Plant,  
by O. Zlodyushko, V. Khanko, 10 pp.  
RUSSIAN, per, Pravda Ukrainy, Kiev, 6 Jan 1970,  
pp 1-2.  
JPRS 50110

Report by GOSPLAN Chairman of Uzbek SSR, by  
S. K. Ziyadullayev, 9 pp.  
RUSSIAN, np, Pravda Vostoka, Tashkent, 26 Dec  
1969, pp 1, 2.  
JPRS 50072

Industrial Reforms in Armenia Discussed,  
by A.A. Gevorgyan, 12 pp.  
RUSSIAN, per, Promyshlennost' Armenii,  
Yerevan, No 10, 1969, pp. 3-7.  
JPRS 50178

Methods of Evaluating New Equipment Mentioned,  
by B. O. Yegiazaryan, 8 pp.  
RUSSIAN, per, Promyshlennost' Armenii,  
Yerevan, No 10, 1969, pp 43-46.  
JPRS 50178

Unsatisfactory Operation of Enterprises Chided,  
by M.KH. Kotanyan, V.A. Paronikyan, 7 pp.  
RUSSIAN, per, Promyshlennost' Armenii,  
Yerevan, No 10, 1969, pp. 53-56.  
JPRS 50178

Practical Ways to Reduce Construction Costs  
Considered, by V. A. Korol', 6 pp.  
RUSSIAN, per, Promyshlennost' Belorussii,  
Minsk, Sept 1969, pp 30-31.  
JPRS 50152

Principles of Unified Transport Planning Set  
Forth, by A. Kovalyov, 6 pp.  
RUSSIAN, per, Rechnoy Transport, Moscow, No 10,  
Oct 1969, pp 11-12.  
JPRS 50143

RSSSR Rural Construction for 1970 Considered,  
by I. Bakhtin, 8 pp.  
RUSSIAN, per, Sotsialisticheskoye Stroitel'stvo, Moscow,  
No 11, 1969, pp 1-2.  
JPRS 50010

Changes in Administrative Practices Reviewed,  
5 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow,  
7 Jan 1970, p 1.  
JPRS 50110

Coordination Among Related Light Industries Needed,  
by Zh. Tkachenko, 8 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow,  
13 Jan 1970, p 2.  
JPRS 49921

Formation of Production Associations Discussed,  
by F. Kholostov, 5 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow,  
18 Jan 1970, p 1.  
JPRS 49921

Operations of New Black Sea Port Described,  
by Ye. Fadeyev, 5 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya,  
Moscow, 10 Feb 1970, p 1.  
JPRS 50034

Officials, Plant Representatives Discuss  
Turnover, by I. Leshchevskiy, V. Palenov,  
5 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya,  
Moscow, 1 Mar 1970, p 2.  
JPRS 50184

Method of Firing Workers by Management Described,  
by Yu. Korshunov, 6 pp.  
RUSSIAN, per, Sotsialisticheskaya Zakonnost',  
Moscow, No 10, 1969, pp 60-62.  
JPRS 50108

Labor Discipline Supervision Analyzed, by  
G. Ponomarev, 5 pp.  
RUSSIAN, per, Sotsialisticheskaya Zakonnost',  
Moscow, No 11, Nov 1969, pp 21-24.  
JPRS 50184

Treatment of Labor Disputes in Turkmenia  
Reviewed, by N. Galaktionova, 5 pp.  
RUSSIAN, per, Sotsialisticheskaya Zakonnost',  
Moscow, No 11, Nov 1969, pp 25-28.  
JPRS 50184

Beginnings of Shebekino Experiment Described,  
6 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud,  
Moscow, No 8, Aug 1969, pp 33-34.  
JPRS 50002

Supply-Sale Units Converting to New Incentives,  
by V. Korotkov, 7 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
Sept 1969, pp 35-39.  
JPRS 50141

Procedure for Bonus Dispute Settlement Described,  
by V. Frolov, 5 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
Oct 1969, pp 141-144.  
JPRS 50141

Experimental Wage System for Scientists  
Described, by Ya. Kolotyarkin, 9 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud,  
Moscow, No 11, 1969, pp 16-22.  
JPRS 50120

Effectiveness of New Administrative Structure  
Detailed, by D. Takoyev, 14 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
No 11, 1969, pp 23-33.  
JPRS 50141

Various Forms of On-the-Job Training Dis-  
cussed, by M. Pankin, 7 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud,  
Moscow, Nov 1969, pp 140-145.  
JPRS 50193

Link Between Incentive, Wage Funds Defended,  
by S. Shkurko, 14 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
Dec 1969, pp 25-35.  
JPRS 49914

Enterprises Cut Staffs Sharply in Experiment,  
by R. Batkayev, 11 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
Dec 1969, pp 36-44.  
JPRS 49914

Coal Industry Revamps Incentive, Bonus Systems,  
by A. Kletkin, 8 pp.  
RUSSIAN, per, Sotsialisticheskoy Trud, Moscow,  
Dec 1969, pp 51-56.  
JPRS 49914

Shchekino Experiment Considered, Lauded, by  
K. Zhironkin, N. Savol'yev, 26 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud,  
Moscow, No 1, 1970, pp 30-47.  
JPRS 50120

Report by GOSPLAN Chairman of Belorussian SSR,  
by F. L. Kokhonov, 5 pp.  
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 26  
Dec 1969, p 2.  
JPRS 50072

Report by GOSPLAN Chairman of Estonian SSR,  
by Kh. Kh. Allik, 8 pp.  
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 26 Dec  
1969, pp 1, 2.  
JPRS 50072

Report by Finance Minister of Estonian SSR,  
by A. A. Norak, 7 pp.  
RUSSIAN, per, Sovetskaya Estoniya, Tallin,  
26 Dec 1969, pp 3,4.  
JPRS 50072

Tallin Scientific Institute Evaluates New  
System, by Yu. Kess, 5 pp.  
RUSSIAN, np, Sovetskaya Estoniya, Tallin,  
30 Jan 1970, p 2.  
JPRS 49983

Report of GOSPLAN Chairman of Kirgiz SSR, by  
O. B. Ponomarev, 7 pp.  
RUSSIAN, np, Sovetskaya Kirgiziya, Frunze,  
26 Dec 1969, p 2.  
JPRS 50072

Report by GOSPLAN Chairman of Lithuanian SSR,  
by A. Drobnis, 5 pp.  
RUSSIAN, np, Sovetskaya Litva, Vil'nyus,  
24 Dec 1969, pp 1,2pp  
JPRS 50072

Report by GOSPLAN Chairman of Moldavian SSR,  
by I. G. Dobynde, 9 pp.  
RUSSIAN, np, Sovetskaya Moldaviya, Kishinev,  
26 Dec 1969, pp 2,4.  
JPRS 50072

Report by Finance Minister of Moldavian SSR,  
by V. A. Arpent'yev, 6 pp.  
RUSSIAN, np, Sovetskaya Moldaviya, Kishinev,  
26 Dec 1969, p 3.  
JPRS 50072

Moldavian Knitwear Factory Severely  
Criticized, by V. Shevchenko, 7 pp.  
RUSSIAN, np, Sovetskaya Moldaviya,  
Kishinev, 19 Feb 1970, p 2.  
JPRS 50187

Subsidiary Kolkhoz, Sovkhoz Industry Discussed,  
by G. Kaplun, 7 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'skaya  
Kooperatsiya, Moscow, No 12, Dec 1969, pp 36-40.  
JPRS 50152

Report by GOSPLAN Chairman of RSFSR, by  
K. M. Gerasimov, 5 pp.  
RUSSIAN, np, Sovetskaya Rossiya, Moscow,  
24 Dec 1969, p 2  
JPRS 50072

Continuous Operation of Enterprises Recommended,  
by N. Zhenchenko, 5 pp.  
RUSSIAN, np, Sovetskaya Rossiya, Moscow,  
15 Feb 1970, p 2.  
JPRS 50155

Plea for Development of Tyumen' Oil and Gas  
Made, by B. Shcherbina, 8 pp.  
RUSSIAN, per, Sovetskaya Rossiya, Moscow,  
28 Feb 1970, pp 1-2.  
JPRS 50193

Property Liability, Ability to Pay Discussed,  
by Ye. Klenov, V. Malov, 6 pp.  
RUSSIAN, per, Sovetskaya Yustitsiya, Moscow,  
No 23, Dec 1969, pp 12-14.  
JPRS 50193

Unity and Differentiation in Pension Legislation  
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RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 2, Feb 1970, pp 32-39.  
JPRS 50155

Improving Legal Regulation of Control of Social  
Parasites, by I. P. Tsvetodub,  
A. S. Shlyapochnikov, 11 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 2, Feb 1970, pp 81-88.  
JPRS 50155

USSR  
Economic Control

Tashkent Subway Construction Plans Outlined, by  
M. F. Korovin, 9 pp.  
RUSSIAN, per, Stroitel'stvo i Arkhitektura  
Uzbekistana, Tashkent, Sept 1969, pp 1-4.  
JPRS 50104

Domestic Fish-Processing Depot Ships  
Described, by G. F. Andreyev, V. V. Arsen'yev,  
9 pp.  
RUSSIAN, per, Sudostroyeniye, Leningrad,  
No 12, Dec 1969, pp 5-9.  
JPRS 50188

Data on Medium Fishing Trawlers Provided,  
by A. B. Baybakov, B. M. Sychev, 11 pp.  
RUSSIAN, per, Sudostroyeniye, Leningrad,  
No 12, Dec 1969, pp 9-17.  
JPRS 50188

Technical Progress in Textile Industry Reviewed,  
6 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost', Moscow,  
No 10, Oct 1969, pp 3-7.  
JPRS 49955

Transport Construction in 1970 Outlined, 6 pp.  
RUSSIAN, per, Transportnoye Stroitel'stvo,  
Moscow, Feb 1970, pp 1-3, 27.  
JPRS 50183

Work of UFA Job Placement Bureau Lauded, by  
N. Nadezhkina, 5 pp.  
RUSSIAN, per, Trud, Moscow, 31 Jan 1970, p 2.  
JPRS 50080

Cement Industry Urged to Cut Production Cost,  
5 pp.  
RUSSIAN, per, Tsement, Leningrad, Feb 1970,  
pp 1-2.  
JPRS 50152

New System for Planning and Economic Incentive  
at Enterprises of Tulaugol Combine, by  
A. A. Subbotin, 5 pp.  
RUSSIAN, per, Ugol, Moscow, No 11, 1969, pp 16-18.  
JPRS 50141

Coal Industry Operations in Past Four Years of  
Five-Year Plan, by L. Ye. Grafov, 10 pp.  
RUSSIAN, per, Ugol, Moscow, No 1, 1970, pp 1-6.  
JPRS 50108

USSR  
Economic Control

Inozemtsev Discusses Soviet American Studies, by  
N. N. Inozemtsev, 9 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 6-15.  
JPRS 49934

New Trends in Management, by B. Z. Mil'ner, 20 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 49-59.  
JPRS 49934

Occupational Breakdown of 1970 Census Described,  
by N. Mokshantseva, 7 pp.  
RUSSIAN, per, Vestnik Statistiki, Moscow, Nov 1969,  
pp 58-62.  
JPRS 50141

Measures Proposed for Better Rural Manpower Use,  
by N. Akhmedshin, 12 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 11,  
1969, pp 99-108.  
JPRS 50141

Production of CEMA Countries to be Coordinated,  
by Yu. Shiryayev, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 11, 1969, pp 109-116.  
JPRS 50131

Optimizing Socialist Foreign Economic  
Relations, by G. Prokhorov, 16 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 11, 1969, pp 117-126.  
JPRS 50131

Manpower Use, School, Vocational Guidance Treated,  
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RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 11,  
1969, pp 151-153.  
JPRS 50141

Time Budget Research Projects Outlined, by  
Z. Kalugina, B. Kutyrev, 5 pp.  
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1969, pp 156-158.  
JPRS 50141

Distribution of Production Forces Discussed,  
by Ye. Feygin, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 1, 1970, pp 3-13.  
JPRS 50014

and for greater material responsibility.  
Annot. by Ya. Sedukhin, 11 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 1, 1970, pp 12-13.  
JPRS 50014

Technical Progress and Capital Investments  
Analyzed, by V. Krasovskiy, 14 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 1, 1970, pp 12-13.  
JPRS 50014

Conference on Enterprise Planning and  
Economic Independence Held, by  
L. Reschastnyy, 6 pp.  
RUSSIAN, per, Voprosy Ekonomiki, Moscow,  
No 1, 1970, pp 12-13.  
JPRS 50014

Report by CPSU Chairman of Georgian SSR,  
by Ye. M. Dzhabaridze, 8 pp.  
RUSSIAN, per, Zarya Vostoka, Tbilisi, 26 Dec 1969,  
pp 2,3.  
JPRS 50072

Report by Finance Minister of Georgian SSR,  
by A. V. Chirakadze, 6 pp.  
RUSSIAN, per, Zarya Vostoka, Tbilisi, 26 Dec 1969  
pp 3,4.  
JPRS 50072

Problems in Labor Productivity Reviewed, by  
Ya. P. Kartsev, 11 pp.  
RUSSIAN, per, Zheleznodorozhnyy Transport, Moscow,  
No 11, Nov 1969, pp 58-63.  
JPRS 50108

Problem of Unloading Building Materials  
Studied, by D. Odintsov, Ye. Zhavoronkov,  
6 pp.  
RUSSIAN, per, Zhilishchnoye Stroitel'stvo,  
Moscow, No 1, 1970, pp 22-24.  
JPRS 50188

Report by CPSU Chairman of Armenian SSR, by  
L. S. Khachatryan, 11 pp.  
ARMENIAN, per, Sovetakan Hayastan, Yerevan, 26 Dec  
1969, pp 1, 2.  
JPRS 50072

Report by Finance Minister of Armenian SSR, by  
S. P. Safaryan, 8 pp.  
ARMENIAN, per, Sovetakan Hayastan, Yerevan, 26 Dec  
1969, pp 1, 4.  
JPRS 50072

Survey of Large-Area Freight Cars Described,  
by G. J. Sorokin, 11 pp.  
GERMAN, per, Deutscher Eisenbahntechnik,  
East Berlin, Nov 1969, pp 123-124.  
JPRS 50046

#### Political

Diplomacy of Contemporary Imperialism, 227 pp.  
RUSSIAN, bk, Diplomatiya Sovremenogo Imperial-  
izma: Lyudi, Problemy, Metody, 1969, 415 pp.  
JPRS 50134

Conference on Teaching Internationalism  
Reported, by Ya. Frisher, 6 pp.  
RUSSIAN, per, Kommunist Sovetskoy Latvii,  
Riga, No 1, Jan 1970, pp 52-57.  
JPRS 50000

Political Training at Sea Cited, Applauded, by  
A. Syagayev, 14 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow,  
No 1, Jan 1970, pp 52-57.  
JPRS 50015

Greater Party Control for Komsomol Activities,  
by V. Goncharov, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow,  
No 2, Jan 1970, pp 57-62.  
JPRS 50030

An Examination of Ideology and Military  
Coalitions, by V. Rodin, 12 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 10-17.  
JPRS 50033

Criticism and Self-Criticism Urged in CPSU,  
by F. Veinov, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 26-32.  
JPRS 50033

Western Powers' Distrust of USSR Led to World War II, by P. Deravyanko, O. Rzheshhevskiy, 9 pp.  
RUSSIAN, per, Krasnaya Zvezda, Moscow, 19 Feb 1970, pp 2-3.  
JPRS 50043

USSR Prepared for World War II Despite German Pact, by O. Suvenirov, I. Kuzmichev, 9 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 3 Mar 1970, pp 2, 3.  
JPRS 50136

Konotop Speaks at Moscow Oblast Kolkhoz Congress, by V. I. Konotop, 10 pp.  
RUSSIAN, np, Leninskoye Znamya, Moscow, 25 Oct 1969, p 2.  
JPRS 49956

Role of Youth in Class Struggle Discussed, by T. Timofeyev, 6 pp.  
UKRAINIAN, np, Molod Ukrayiny, Kiev, 27 Feb 1970, p 2.  
JPRS 50136

West Criticized for Distorting Lenin's View of Party Orientation in Literature, by Al. Dynshits, 10 pp.  
RUSSIAN, per, Oktayabr, Moscow, No 1, 1970, pp 200-207.  
JPRS 50158

Shortcomings Noted in Party, State Discipline, by Yu. Tochilkin, 13 pp.  
RUSSIAN, per, Partiynaya Zhizn', Moscow, No 24, Dec 1969, pp 36-43.  
JPRS 50136

Party Organizations Must Effectively Guide Economy, 9 pp.  
RUSSIAN, per, Partiynaya Zhizn', Moscow, No 1, Jan 1970, pp 32-36.  
JPRS 50136

Ways to Improve Party Meetings Outlined, by A. Iravchenko, 12 pp.  
RUSSIAN, per, Partiynaya Zhizn', Moscow, No 3, 1970, pp 31-38.  
JPRS 50097

West Fails to Fulfill Yalta Conference Accords, 7 pp.  
RUSSIAN, np, Pravda, Moscow, 12 Feb 1970, p 4.  
JPRS 50043

Novelist Fails to Develop Historical Theme, by N. Ravluk, 5 pp.  
RUSSIAN, np, Pravda Ukrayiny, Kiev, 7 Feb 1970, p 4.  
JPRS 50097

Estonian Industry Evaluated at Republic Party Conference, 5 pp.  
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 4 Mar 1970, p 1.  
JPRS 50158

Songaila's Speech to Conference of Lithuanian AKTIV, 5 pp.  
RUSSIAN, np, Sovetskaya Litva, Vil'nyus, 31 Jan 1970, p 2.  
JPRS 50097

Resolution of Moldavian Party on Results of December 1969 CPSU Plenum, 5 pp.  
RUSSIAN, np, Sovetskaya Moldavia, Kishinev, 17 Jan 1970, p 1.  
JPRS 50158

Party Aktiv Hears Results of December Plenum, 11 pp.  
RUSSIAN, per, Sovetskaya Moldaviya, Kishinev, 18 Jan 1970, pp 2-3.  
JPRS 50050

Speech by K. G. Pysin to RSFSR Kolkhoz Congress, 7 pp.  
RUSSIAN, np, Sovetskaya Rossiya, Moscow, 17 Feb 1970, pp 1, 3.  
JPRS 50033

Relation Between Democracy and Communism Viewed, by A. I. Denisov, 14 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo, Moscow, Dec 1969, pp 3-13.  
JPRS 49983

Rights of Members of Public Organizations Viewed, by Ts. A. Yampol'skaya, 11 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo, Moscow, Dec 1969, pp 28-35.  
JPRS 49983



USSR  
Political Council

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Political Council

Unification of Civil Legislation Needed, by  
O. N. Sadikov, 14 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, Dec 1969, pp 30-44.  
JPRS 49933

New Powers for Standing Commissions Reviewed,  
by L. I. Krivenko, 15 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 1, 1970, pp 32-40.  
JPRS 49983

Ch. Atayev Addresses Turkmen CP CC Plenum,  
10 pp.  
RUSSIAN, np, Turkmen'skaya Iskra, Ashkhabad,  
29 Jan 1970, p 2.  
JPRS 49983

Gus Hall Discusses Changing Pattern of Thought,  
7 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 15-20.  
JPRS 49934

Arbatov Views U.S. Foreign Policy in 70's, by  
G. A. Arbatov, 17 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 21-34.  
JPRS 49934

Leninist Theory and Modern Imperialism, by  
I. A. Sokolov, 19 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 35-48.  
JPRS 49934

Soviet Comments on Salt and U.S. Position, 11 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, Jan 1970, pp 60-64.  
JPRS 49934

U. S. Asian Policy Violates Asian Interests, by  
D. A. Volskiy, 5 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 65-68.  
JPRS 49934

Commentary on Results of 91st Session of U.S.  
Congress, 7 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 76-79.  
JPRS 49934

Lyudmila Gvishdani: William Bullitt's Mission  
in 1919, by Lyudmila Gvishdani, 13 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 80-86.  
JPRS 49934

General Gavin's book 'Crisis Now' Reviewed, by  
L. M. Sheydn, 8 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 87-90.  
JPRS 49934

Report on U.S. President and National Security  
Management Reviewed, by Yu. A. Shvedkov, 5 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 91-92.  
JPRS 49934

Composition of U. S. Joint Chiefs of Staff,  
by G. P. Mel'nikov, 6 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 113-115.  
JPRS 49934

History of Black Panther Party Traced, by  
I. A. Geyevskiy, 6 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 115-118.  
JPRS 49934

Pugwash Conference Proceedings Related, 10 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology,  
Moscow, No 1, Jan 1970, pp 122-127.  
JPRS 49934

Treaty Between USSR and German Democratic  
Republic on Dual Citizenship, 6 pp.  
RUSSIAN, per, Vedomosti Berkhovnogo Soveta  
SSSR, Moscow, No 6, 1970, pp 51-55.  
JPRS 50158

Book on Party Struggle with 'Detsists' Re-  
viewed, by B. M. Morozov, 5 pp.  
RUSSIAN, per, Voprosy Istorii KPSS, Moscow,  
No 1, 1970, pp 125-127.  
JPRS 50097

Book on Party's Role in Last War Reviewed, by  
A. E. Ekshteyn, 9 pp.  
RUSSIAN, per, Voprosy Istorii KPSS, Moscow, No 2,  
1970, pp 132-135.  
JPRS 50136

USSR  
Political Control

USSR  
Military Control

Marshal Yakubovskiy Reviews Vistula-Oder Operation, by I. Yakubovskiy, 8 pp.  
RUSSIAN, per, Voyennoistoricheskiy Zhurnal, Moscow, No 2, 1970, pp 61-74.  
JPRS 50158

Ukraine Honors Heritage of Lenin's Work, by P. M. Shmorgun, 31 pp.  
UKRAINIAN, per, Radyanska Ukrayina, Kiev, 6 Feb 1970, pp 3-4.  
JPRS 50158

Objectivity of Bourgeois Historians Questioned, by A. F. Kilunov, 16 pp.  
UKRAINIAN, per, Ukrayinsky Istorychny Zhurnal, Kiev, No 1, 1970, pp 31-43.  
JPRS 40083

Military

Soviet Army, Navy Celebrates 52d Anniversary, by I. Yakubovskiy, 8 pp.  
RUSSIAN, per, Agitator, Moscow, No 3, Feb 1970, pp 22-25.  
JPRS 50015

Book Outlines World War II Defense in Southwest, 7 pp.  
RUSSIAN, np, Bakinskiy Rabochiy, Baku, 28 Jan 1970, p 3.  
JPRS 50030

Civil Defense--A National Concern, by V. A. Belyavskiy 21 pp.  
RUSSIAN, per, Grazhdanskaya Oborona Vsenarodnoye Delo, pp 1-33, 1968.  
ACSI J-8044  
FSTC-HT-23-847-70

Soviets Celebrate 52d Anniversary of the Armed Forces, by K. Moskalenko, 5 pp.  
RUSSIAN, np, Kazakhstanskaya Pravda, Alma-Ata, 22 Feb 1970, pp 1, 3.  
JPRS 50071

Importance of Younger Officers Cited, Stressed, by A. Yepishev, 21 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 1, Jan 1970, pp 8-18.  
JPRS 50015

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RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 1, Jan 1970, pp 40-44.  
JPRS 50015

Patriotic Traditions Stressed for Army Lay, 13 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, Jan 1970, pp 51-56.  
JPRS 50030

Military Periodic Press Reviewed, Criticized, 7 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 1, Jan 1970, pp 88-90.  
JPRS 50015

Party Organizations Stress Flight Safety, by A. Borisov, P. Dragovoz, 7 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 2, Jan 1970, pp 63-66.  
JPRS 50030

Combat Training to Stress Psychological Aspects, by A. Stolyarenko, 11 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 2, Jan 1970, pp 72-76.  
JPRS 50030

New Text on Military Philosophy Reviewed, by V. Konoplev, N. Bobrov, 6 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 2, Jan 1970, pp 90-92.  
JPRS 50030

Problems of Multinational Personnel Discussed, by V. Samoylenko, 10 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 3, Feb 1970, pp 18-25.  
JPRS 50192

Admiral Urges Tight Training for Voyages, by V. Kasatonov, 9 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 3, Feb 1970, pp 42-48.  
JPRS 50192

Correspondence Studies for Political Officers,  
by V. Shashkov, 5 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 49-51.  
JPRS 50192

Aids to Improve Independent Study of Students,  
by N. Perseninov, V. Gurin, 6 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 52-54.  
JPRS 50192

Importance of Military Rituals Analyzed,  
by G. Ashev, 6 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 55-58.  
JPRS 50192

Party Activities in Black Sea Fleet Reported,  
by I. Savchenko, 8 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
Moscow, No 3, Feb 1970, pp 59-63.  
JPRS 50192

Long Voyage by Soviet Cruiser Recounted, by  
V. Shin, 5 pp.  
RUSSIAN, np, Komsomol'skaya Pravda, Moscow, 5 Feb  
1970, p 4.  
JPRS 50071

Military Political Literature Reviewed, by  
A. Lizichev, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 17 Jan 1970,  
p 2.  
JPRS 49933

Discipline in Executing Army Orders Discussed,  
by A. Sokolov, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 17 Jan 1970,  
p 2.  
JPRS 49933

Officer Cadets Reply to Training Questionnaire,  
by A. Shchelokov, R. Makushin, 12 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 17 Jan 1970,  
p 3.  
JPRS 49933

Officer Professional, Ideological Demands Told,  
by I. I. Gusakovskiy, 7 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 20 Jan 1970,  
p 2.  
JPRS 49922

Close Assistance to Young Officers Stressed,  
by A. N. Yefimov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 21 Jan 1970,  
p 2.  
JPRS 49922

Violations of Military Discipline Criticized,  
by Zh. Taratuta, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 22 Jan 1970,  
p 2.  
JPRS 49933

General Tactics in World War II Analyzed, by  
V. Reznichenko, 8 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 23 Jan 1970,  
pp 2-3.  
JPRS 49933

Cultivating Initiative in Young Officers Urged,  
by A. Pushkin, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 23 Jan 1970,  
p 4.  
JPRS 49933

Reserve Officer Refuses to Assume Command, by  
A. Sinev, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 25 Jan 1970,  
p 2.  
JPRS 49922

Role of Soviet Air Force in World War II  
Traced, by Avn G. Pshenyanik, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 28 Jan  
1970, p 2.  
JPRS 50089

Better Training for Political Officers Stressed,  
by Ye. Mal'tsev, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 31 Jan  
1970, p 2.  
JPRS 50089

Importance of Studying Personalities Stressed,  
by F. Kantur, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 4 Feb  
1970, p 2.  
JPRS 50089

Use of Weapons and Armor in Combat Analyzed,  
by I. Vorob'yev, 7 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 5 Feb  
1970, pp 2-3.  
JPRS 50089

Oversimplification in Training Criticized, by  
A. Andrianov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 6 Feb  
1970, p 2.  
JPRS 50089

Review of Foreign Antiaircraft Defense Views,  
by Ye. Kosyrev, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 7 Feb  
1970, p 4.  
JPRS 50089

Company Commander Relates Training Experience,  
by V. Devin, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 10 Feb 1970,  
p 2.  
JPRS 50015

Book on Lenin and Armed Forces Reviewed, by  
V. Shelyag, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 10 Feb 1970,  
p 2.  
JPRS 50015

Air Force Bomber Unit Training Success Described,  
by I. Chernykh, V. Filatov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 11 Feb 1970,  
p 2.  
JPRS 50015

Permanent Flight Controller Assignments Made,  
by I. Chernykh, V. Filatov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 12 Feb 1970,  
p 2.  
JPRS 50103

Importance of Modern Control Techniques Stressed,  
by V. Dashkevich, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 13 Feb 1970,  
p 2.  
JPRS 50103

Remote Arctic Naval Shore Battery Visited, by  
N. Kotysh, 6 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 15 Feb 1970,  
p 2.  
JPRS 50103

Field Training for Logistical Support Specialists,  
by N. Levchenko, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 18 Feb  
1970, p 2.  
JPRS 50121

Submarine Training Exercise Described, by  
V. Pecheritsa, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow,  
19 Feb 1970, p 2.  
JPRS 50121

Course in Firing Medium Caliber Antiaircraft  
Artillery of the Red Army, 50 pp.  
RUSSIAN, bk, Kurs Strel'by Srednekalibernoy  
Zenitnoy Artillerii Krasnoy Armii 1944, 1945, 63 pp.  
ACSI J-7992  
FSTC-HT-23-315 -69

Impact of Military Garrison on Life in Rural  
Areas Depicted, by Aleksandr Prokhanov, 5 pp.  
RUSSIAN, np, Literaturnaya Gazeta, Moscow,  
18 Feb 1970, p 11.  
JPRS 50158

The Motorized Rifle Battalion in a Tactical Air  
Landing, by I. S. Lyutov, P. T. Sagaydak, 115 pp.  
RUSSIAN, bk, Motostrelkovyy Batal'on v Takticheskoy  
Vozdushnom Desante, 1969.  
ACSI J-7484  
ID 2204008769

Close Ties Linking Army, People, Party Urged,  
by F. Yefimov, 11 pp.  
RUSSIAN, per, Partiynaya Zhizn', Moscow, No 3,  
Feb 1970, pp 12-19.  
JPRS 50138

Border Troops During the Great Patriotic War, by  
P. I. Zyryanov, 810 pp.  
RUSSIAN, bk, Pogranichnyye Voyska v Gody Velikoy  
Otechestvennoy Voyny, 1968, pp 7-707.  
ACSI J-6246  
ID 2204020168

Zakharov Reviews Capture of Budapest from Germans,  
by M. Zakharov, 5 pp.  
RUSSIAN, np, Pravda, Moscow, 13 Feb 1970, p 3.  
JPRS 50050

Tank Regiment's Training Activities Described,  
6 pp.  
RUSSIAN, np, Pravda, Moscow, 20 Feb 1970, p 3.  
JPRS 50138

Second World War Partisan Operations Recalled,  
by Dmitriy Naumov, 29 pp.  
RUSSIAN, per, Prostor, Alma Ata, No 2, Feb 1970,  
pp 82-93.  
JPRS 50071

Anti-Tank Defense of the Motorized-Rifle Battalion,  
by G. I. Garbuz.  
RUSSIAN, bk, Protivotankovaya Oborona Motostralkovogo  
Batal'ona, 1969, pp 160.  
\*ACSI J-8190  
ID 2204003670

Tactical Training - Mass Destruction Weapons and  
Defense Against Them, by A. K. Loshchilov,  
V. P. Nesterov, 114 pp.  
RUSSIAN, bk, Takticheskaya Podgotova -- Ouzhiye  
Massovogo Porazheniya i Zashchita Ot Nego, 1969.  
ACSI J-7766  
ID 2204008869

Soviet Armed Forces Lauded, by S. S. Maryakhin,  
5 pp.  
RUSSIAN, np, Kabochaya Gazeta, Kiev, 21 Feb 1970,  
p 1.  
JPRS 50138

Military Topography - Tank Troopers Manual, by  
A. D. Yermolayev, V. V. Ignatenko, 137 pp.  
RUSSIAN, bk, Voyennaya Topografiya - Posobiye  
Dlya Tankistov, 137 pp.  
ACSI J-7995  
ID 2204001470

Belorussian Military Conference Discussed, 7 pp.  
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 22 Jan  
1970, pp 1, 3.  
JPRS 49922

Ground Attack Aviation Tactics During WW II  
Examined, by S. Chepelyuk, 14 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Jan 1970, pp 23-33.  
JPRS 49922

Influence of Art on Sailors Discussed, by  
I. Rudnev, 7 pp.  
RUSSIAN, per, Sovetskaya Kul'tura, Moscow, 12 Feb  
1970, pp 2-3.  
JPRS 50071

Book on Events of Battle of Moscow Reviewed,  
by P. Zharkov, 6 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Jan 1970, pp 70-73.  
JPRS 49922

International Role of Soviet Forces Stressed, by  
A. Bulatov, 9 pp.  
RUSSIAN, per, Sovetskaya Moldaviya, Kishinev, 21  
Feb 1970, pp 2-3.  
JPRS 50138

Military Journals as Historical Sources, by  
I. Korotkov, 15 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Jan 1970, pp 83-91.  
JPRS 49922

Outstanding Transbaykal Soldiers Described, by  
A. Danilov, V. Peredel'skiy, 8 pp.  
RUSSIAN, per, Sovetskiy Voin, Moscow, No 3, Feb  
1970, pp 20-27.  
JPRS 50071

Military-Patriotic Work in Schools Described,  
by M. Milyavskiy, 5 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Jan 1970, pp 98-100.  
JPRS 49922

Sergeant's Role as Troop Educator Discussed,  
by S. P. Vasyagin, 6 pp.  
RUSSIAN, per, Starshina Serzhant, Moscow, No 1,  
Jan 1970, pp 4-5.  
JPRS 49933

International Symposiums on World War II, by  
L. Kruglov, 6 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Jan 1970, pp 109-113.  
JPRS 49922

Military School Admission Process Explained, by  
V. Konnoplyanik, 7 pp.  
RUSSIAN, per, Starshina Serzhant, Moscow, No 1,  
Jan 1970, pp 34-35.  
JPRS 49933

Popular History of Soviet Army Reviewed, by  
V. Sekistov, 6 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Feb 1970, pp 75-78.  
JPRS 50121

attle of Stalingrad: Two New Works Reviewed,  
by P. Ogarev, 5 pp.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,  
Moscow, Feb 1970, pp 83-85.  
JPRS 50121

SABAs and Civil Defense Work Outlined, 7 pp.  
RUSSIAN, per, Voyennyye Znaniya, Moscow, Jan 1970,  
pp 1-4.  
JPRS 49933

Portable Chemical Reconnaissance Kit Described,  
by Yu. Dament, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, Moscow, No 1,  
Jan 1970, pp 18-20.  
JPRS 50015

Civil Defense Courses Criticized, by  
G. Prikazchikova, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, Moscow, Jan 1970,  
pp 20-21.  
JPRS 49933

Counter-Radar Measures Discussed, by  
Yu. Stepanov, 5 pp.  
RUSSIAN, per, Voyennyye Znaniya, Moscow, Jan 1970,  
pp 39-40.  
JPRS 49933

Officer Discusses Navy as a Career, by  
A. Yevdokimov, 6 pp.  
RUSSIAN, per, Voyennyye Znaniya, Moscow, Jan 1970,  
p 44.  
JPRS 49933

Yakubovskiy Sums up Red Army's Achievements,  
by Ivan Yakubovskiy, 5 pp.  
POLISH, np, Zolnierz Wolnosci, Warsaw, 23 Feb 1970,  
p 4.  
JPRS 50071

*Geographic*

Physical Geography of the USSR, by Davydeva,  
Tushinskiy, 666 pp.  
RUSSIAN, bk, Fizicheskaya Geografiya, 2d Edition,  
1966, pp 265-438; 445-476; 484-553; 577-801.  
ACSI J-6585  
ID 2204001769

Functions of Judicial System Discussed, by  
V. Terebilov, 5 pp.  
RUSSIAN, np, Izvestiya, Moscow, 28 Dec 1969,  
p 4.  
JPRS 50033

Kazakhstan Atheists in Need of Assistance,  
by I. Zhivoglyad, 6 pp.  
RUSSIAN, np, Kazakhstanskaya Pravda, Alma Ata,  
20 Jan 1970, p 2.  
JPRS 50000

Readers Speak Out Against Soviet Drunkenness,  
6 pp.  
RUSSIAN, np, Komsomol'skaya Pravda, Moscow,  
18 Feb 1970, p 4.  
JPRS 50158

Officer Dismissed from Army for Drunkenness, by  
M. Yezumov, 5 pp.  
RUSSIAN, np, Krasnaya Zvezda, Moscow, 6 Feb 1970,  
p 4.  
JPRS 49956

Sociological Research Conducted in Kostroma,  
by M. Krivich, 8 pp.  
RUSSIAN, np, Literaturnaya Gazeta, Moscow,  
21 Jan 1970, p 12.  
JPRS 49956

Kochetov's New Novel Criticized, by  
Yu. Andreyev, 7 pp.  
RUSSIAN, np, Literaturnaya Gazeta, Moscow,  
11 Feb 1970, p 4.  
JPRS 50000

RSFSR Writers Discuss 1969 Magazine Literature,  
5 pp.  
RUSSIAN, np, Literaturnaya Gazeta, Moscow, 11 Feb  
1970, p 4.  
JPRS 50050

Concept of Narodnost in Literature Considered,  
by A. Metchenko, 19 pp.  
RUSSIAN, per, Moskva, Moscow, No 1, Jan 1970,  
pp 197-206.  
JPRS 50136

Related Books on Social Structure Reviewed,  
by G. Tselms, 8 pp.  
RUSSIAN, per, Novyy Mir, Moscow, 12 Dec 1969,  
pp 261-264.  
JPRS 50000

USSR  
Soviet Union

Fesov Publications Contained in "Soviet Union"  
17 pp.  
RUSSIAN, per, Fesov, Pravda, Moscow, No 12,  
Oct 1970, pp 53-61.  
JPRS 50050

Communist Tolerance of Drug Abuse Criticized,  
by V. Il'yina, 5 pp.  
RUSSIAN, np, Pravda, Moscow, No 12, 1970,  
p 3.  
JPRS 50000

Soviet Journalist Gives Impressions of Visit to  
America, by P. Alekseyev, 6 pp.  
RUSSIAN, np, Sel'skaya Zhizn, Moscow, No 1, 1970,  
p 3.  
JPRS 50130

Problems of Judicial Sentencing Analyzed, by  
G. Anashkin, 10 pp.  
RUSSIAN, per, Sotsialisticheskaya Pravda,  
Moscow, No 11, Nov 1969, pp 9-14.  
JPRS 50050

Struggle Against Parasitism Emphasized, by  
A. Reukov, 6 pp.  
RUSSIAN, per, Sotsialisticheskaya Pravda,  
Moscow, No 11, Nov 1969, pp 39-44.  
JPRS 50184

Social Forecasting, by I. V. Bestuzhev-Lada,  
88 pp.  
RUSSIAN, bk, Sotsial'noye Prognosticheskoye,  
Moscow, 1969, 62 pp.  
JPRS 49917

Role of Popular-Science Films Discussed, by  
B. Ostakovich, 7 pp.  
RUSSIAN, np, Sovetskaya Kultura, Moscow, 12 Feb  
1970, p 3.  
JPRS 49956

Coordination of Law Enforcement Organs Urged,  
by V. Kriger, 6 pp.  
RUSSIAN, per, Sovetskaya Yustitsiya, Moscow,  
No 1, Jan 1970, pp 10-11.  
JPRS 50097

System of Legal Information Services Proposed,  
by N. G. Belyayeva, 14 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, Dec 1969, pp 18-27.  
JPRS 49983

Prosecutor's Office Fights Public Property  
Theft, by E. G. Mal'kov, 14 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 12, Dec 1969, pp 53-61.  
JPRS 50050

Hunting and Fishing Regulations Explained, by  
I. M. Tyazhkova, 7 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 12, Dec 1969, p 7.  
JPRS 50050

Local Aspects of Soviet Self Considered,  
by A. D. Boylin, V. M. Starov, 11 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 1, 1970, pp 1-11.  
JPRS 49900

Seminar on Sociological Studies Held, by  
M. Mudrov, G. Pokhvisnev, 8 pp.  
RUSSIAN, np, Trud, Moscow, 12 Jan 1970, p 2.  
JPRS 50080

Living Conditions in Shekhar Villages Scored,  
by Yu. Yulin, 8 pp.  
RUSSIAN, np, Turkmen'skaya Pravda, Ashkhabad, 31  
Jan 1970, p 2.  
JPRS 49956

Book by U.S. "Socialism", by  
M. B. Belyan, 10 pp.  
RUSSIAN, np, Sovetskoye Gosudarstvo i Pravo,  
Moscow, 1, Jan 1970, pp 1-10.  
JPRS 50050

Need for Higher Math Training,  
by M. B. Belyan, 10 pp.  
RUSSIAN, np, Vysheyye Shkoly, Moscow,  
No 8, 1970, pp 1-10.  
JPRS 50050

Local Aspects of Soviet Self Considered,  
by A. D. Boylin, V. M. Starov, 11 pp.  
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,  
Moscow, No 1, 1970, pp 1-11.  
JPRS 50050

Need for Higher Math Training, by  
M. B. Belyan, 10 pp.  
UKRAINIAN, np, Vysheyye Shkoly, Kiev,  
No 8, 1970, pp 1-10.  
JPRS 50050

Best Available Copy

Ukrainian-Czech Educational Ties Traced,  
by V. U. Pavelko, 12 pp.  
UKRAINIAN, per, Ukrayins'kyi Istorychnyy  
Zhurnal, Kiev, No 11, 1969, pp 73-80.  
JPRS 50000

EASTERN EUROPE  
Economic

Ways of Improving Structure of Industry Cited,  
by Jani Fullani, 13 pp.  
ALBANIAN, per, Rruga e Partise, Tirana,  
No 12, Dec 1969, pp 66-76.  
JPRS 50003

Mao Tse-Tung Electric Plant Trains Personnel,  
by Fadil Ymeri, 8 pp.  
ALBANIAN, per, Rruga e Partise, Tirana,  
No 12, Dec 1969, pp 90-95.  
JPRS 50003

Tirana Industrial Supply Needs Stressed, by  
Pjetar Kosta, 6 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana, 23 Jan 1970,  
p 3.  
JPRS 50112

Deficiencies in Economy Blamed on Bureaucratic  
Attitudes, by Miko Nikolla, 5 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana,  
23 Jan 1970, p 2.  
JPRS 50060

Need for Greater Labor Productivity Cited,  
by Zeqir Lika, 5 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana,  
1 Feb 1970, p 3.  
JPRS 50201

Trade Union Role in Enforcing Discipline  
Stressed, by Jorgji Pecini, 5 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana,  
5 Feb 1970, p 3.  
JPRS 50200

Report on Plan Fulfillment, 1970 Budget, by  
Abdyl Kellezi, 25 pp.  
ALBANIAN, per, Zeri i Popullit, Tirana,  
17 Feb 1970, pp 1-4.  
JPRS 50060

Ways to Cut Turnover, Stabilize Work Force Cited,  
by Grigor Iliev, 6 pp.  
BULGARIAN, per, Bulgarski Profsuyuzi, Sofia, No 1,  
1970, pp 4-6.  
JPRS 50107

Changes in Role of Economic Associations Noted,  
by Belcho Iliev, 11 pp.  
BULGARIAN, per, Politicheska Prosveta, Sofia,  
Sofia, No 2, 1970, pp 71-78/  
JPRS 50146

Prices of Fishing Industry Products,  
BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 1, 1969,  
pp 9-10.  
\*Dept of Interior  
BCF/OFF

Use, Problems in Truck Transport Discussed,  
by Iliya Penchev, 15 pp.  
BULGARIAN, per, Statistika, Sofia, Nov-Dec 1969,  
pp 67-77.  
JPRS 49941

Plans for Building Sofia Subway, by  
Dimitur Dokov, 12 pp.  
BULGARIAN, per, Stroitelstvo, Sofia, No 11, Nov  
1969, pp 26-29.  
JPRS 50146

Construction Projects Abroad Listed, Discussed,  
by Denyu Dimitrov, 9 pp.  
BULGARIAN, per, Stroitelstvo, Sofia, Dec 1969,  
pp 4-6.  
JPRS 50060

New Regional Mail Routing Code Discussed, by  
Frantisek Bubla, 7 pp.  
CZECH, per, Ceskoslovenske Spole, Prague, Dec  
1969, pp 19-20.  
JPRS 49931

Report on 1969 Czechoslovak Economy, 55 pp.  
CZECH, per, Hospodarske Noviny, Prague,  
6 Feb 1970, pp 1-15.  
JPRS 50195



Wage Policy for 1970 in Slovakia Discussed,  
by Ivan Hudak, 5 pp.  
SLOVAK, per, Prace a Mada, Prague, Jan 1970,  
pp 9-12.  
JPRS 50164

Czechoslovak Economy in 1969 Summarized, 6 pp.  
CZECH, per, Rude Pravo, Prague, 28 Jan 1970,  
pp 1-5.  
JPRS 49944

Economic Aspects of Minimum Wage in Czechoslovakia,  
by Jan Krc, 10 pp.  
SLOVAK, per, Synleza, Bratislava, Nov 1969, pp 130-  
136.  
JPRS 49941

Political Developments in Agriculture in  
1968 Reviewed, by Oldrich Paul, 6 pp.  
CZECH, np, Tribuna, Prague, 18 Feb 1970,  
p 4.  
JPRS 50007

Kramer Discusses Future of GDR Transportation,  
6 pp.  
GERMAN, per, Deutsche Eisenbahntechnik, East Berlin,  
Jan 1970, pp 6-8.  
JPRS 49931

GDR Cost of Living Compared to West Germany's, 7 pp.  
GERMAN, per, DIW Wochenbericht, West Berlin, 15  
Jan 1970, pp 17-20.  
JPRS 50042

Tasks, Rights, Duties of State Combines in 1970,  
12 pp.  
GERMAN, per, Gesetzblatt der Deutschen Demo-  
kratischen Republik, East Berlin, part II, No 5,  
23 Jan 1970, pp 19-24.  
JPRS 49931

Trade, Supply Minister Looks at 1970 Prospects,  
by Guenter Sieber, 11 pp.  
GERMAN, per, Der Handel, East Berlin, Jan 1970,  
pp 1-4.  
JPRS 50107

Motor Vehicle VVB Head Sets 1970 Industry Tasks,  
by W. Sonntag, 6 pp.  
GERMAN, per, Kraftfahrzeugtechnik, East Berlin,  
Jan 1970, pp 1-2.  
JPRS 49944

Trade Agreements with Other Countries  
Presented, 2 pp.  
GERMAN, np, Marktinformatoren, East Berlin,  
15 Jan 1970, p 2; 2 Feb 1970, p 2.  
JPRS 50164

Boehm Speech Justifying 1970 State Budget,  
15 pp.  
GERMAN, per, Sozialistische Finanzwirtschaft,  
East Berlin, No 2, Feb 1970, pp 4-11.  
JPRS 50164

Deputy Minister Reviews 1970 Foreign Trade  
Goals, by Dieter Albrecht, 5 pp.  
GERMAN, per, Die Wirtschaft, East Berlin, 29 Jan  
1970, p 3.  
JPRS 50146

State Farms to Heed Economic Regulations,  
by Hans Blankenberg, 5 pp.  
GERMAN, np, Die Wirtschaft, East Berlin,  
19 Feb 1970, p 22.  
JPRS 50201

Shape of Future Socialist Planning System  
Outlined, by Horst Steeger, 22 pp.  
GERMAN, per, Wirtschaftswissenschaft,  
East Berlin, Vol 18, 2 Feb 1970, pp 161-177.  
JPRS 50164

Situation of Containerization Program Examined,  
by Rezső Bajusz, 9 pp.  
HUNGARIAN, per, Kozlekedési Kozlony, Budapest,  
4 Jan 1970, pp 7-10.  
JPRS 50065

Fifteen-Year Plan for Employment, Living Standards  
Examined, by Robert Hoch, Janos Kovacs, 18 pp.  
HUNGARIAN, np, Nepszava, Budapest, 4, 11, 18, 25  
Jan 1970, p 7.  
JPRS 50042

Gyorgy Marosan Discusses Labor Movement, by  
Imre Vertes, 7 pp.  
HUNGARIAN, np, Nepszabadsag, Budapest, 20 Feb  
1970, p 6.  
JPRS 50106

Clearing Pact, CEEA Bank Activities Reviewed,  
by Kalman Pecsí, 17 pp.  
HUNGARIAN, per, Penzugyi Szerle, Budapest,  
Dec 1969, pp 988-1000.  
JPRS 50065

- Growth Under New Economic System Reviewed, 12 pp.  
HUNGARIAN, per, Valóság, Budapest, Jan 1970, pp 1-7.  
JPRS 50112
- World Productivity of Fishing Vessels During 1968,  
by C. Wojewodka, 16 pp.  
POLISH, per, Budownictwo Okretowe, Vol 14, No 6,  
1969, pp 184-186.  
Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1968-No 107  
On Loan
- Bulgarian Shipbuilding - Development and  
Outlook, by I. Lazarow, 2 pp.  
POLISH, per, Budownictwo Okretowe, vol 14,  
no 10, 1969, pp. 325-326.  
\*USDI/BCF TT 70-55070
- Fishing Fleet of Ireland, by T. Wojcik,  
3 pp.  
POLISH, per, Budownictwo Okretowe, vol 14  
no 10, 1969, pp. 328-330  
\*USDI/BCF TT 70-55071
- Employment in the Fishing Industry, by  
V. Polkowski, 4 pp.  
POLISH, per, Biuletyn Instytutu Morskiego  
vol 11, no 2/3, 1969, pp. 74-77.  
\*CFSTI TT 70-55073  
Available from BCF
- Problems Affecting 1970 Plan Fulfillment Cited,  
12 pp.  
POLISH, per, Gospodarka Planowa, Warsaw,  
Jan 1970, pp 1-5.  
JPRS 50065
- State Fishery Enterprises in Poland, by A. Balicki,  
14 pp.  
POLISH, per, Gospodarka Rybna, Vol 21, No 7(217),  
1969, pp 4-6.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 54  
On Loan
- Inland Fishery Co-Ops in Their 25th Year, by  
K. Golabek, 6 pp.  
POLISH, per, Gospodarka Rybna, Vol 21, No 7, (217)  
1969, pp 7-8.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 56  
On Loan
- National Construction Plan for 1970 Described,  
by Aleksander Szerwentko, 10 pp.  
POLISH, per, Inwestycje i Budownictwo, Warsaw,  
Jan 1970, pp 7-11.  
JPRS 50112
- Polish Proposals for CEMA Agricultural Cooperation  
Cited, by Bernard Stepowicz, 6 pp.  
POLISH, per, Nowe Rolnictwo, Warsaw, 1-15 Jan 1970,  
pp 28-29.  
JPRS 50112
- Comments on Internationalization of Property  
Ownership within CEMA, by A. Wasilkowski,  
17 pp.  
POLISH, per, Panstwo i Prawo, Warsaw, No 12,  
Dec 1969, pp 970-973.  
JPRS 50003
- Success of Polish Aviation Industry Praised, by  
Zygmunt Szeliga, 7 pp.  
POLISH, np, Polityka, Warsaw, 31 Jan 1970, pp 1, 4.  
JPRS 50112
- Selective Economic Growth Cause Cadre Difficulty,  
by Dariusz Fikus, Jerzy Kleer, 6 pp.  
POLISH, np, Polityka, Warsaw, 7 Feb 1970, p 3.  
JPRS 50082
- General Savings Bank Credit Functions  
Described, by Edward Walaszczyk, 7 pp.  
POLISH, np, Przeglad Zwiatkowy, Warsaw,  
Jan 1970, pp 13-15.  
JPRS 50201
- Metalexport Director Outlines Export Plans,  
by Wieslaw Pysiak, 6 pp.  
POLISH, np, Slowo Powszechne, Warsaw,  
7-8 Feb 1970, p 5.  
JPRS 50065

Crucial Problems to Evaluate the Effectiveness of Investments as Viewed in the Light of Decisions Adopted at 2nd Plenary Session of the Central Committee of the Polish United Workers' Party, by W. Strak, 2 pp.  
POLISH, per, Technika i Gospodarska Morska vol 19, no 12 (222) Dec 1969, pp. 530-531  
\*USDI/BCF TT 70-55065

Mechanization of Fleet Servicing in Fishing Harbors, by J. Strybel, 3 pp.  
POLISH, per, Technika i Gospodarska Morska vol 19, no 12 (222), Dec 1969 pp. 538-540.  
\*USDI/BCF TT 70-55066

Trends and Outlooks in the Development of World Sea Fisheries, by B. Draganik, 4 pp.  
POLISH, per, Technika i Gospodarska Morska vol 19, no 12 (222), Dec 1969, pp. 540-543  
\*USDI/BCF TT 70-55067

For the Proper Planning of the Volume of Catches and Their Composition by Fish Species, by R. Skwira, 3 pp.  
POLISH, per, Technika i Gospodarska Morska vol 19, no 12, (222) pp. 543-545 Dec 1969  
\*USDI/BCF TT 70-55068

Accomplishments and Growth of the Polish Association of Maritime Law, by J. Mlynarczyk, 4 pp.  
POLISH, per, Technika i Gospodarska Morska vol 19, no 12 (222) Dec 1969 pp. 546-549.  
\*USDI/BCF TT 70-55069

SEJM Delegates Discuss Various New Bills, 6 pp.  
POLISH, np, Trybuna Ludu, Warsaw, 13 Feb 1970, p 4.  
JPRS 50107

Organization, Plans of New Combine Outlined, by R. Bajerlaja, 5 pp.  
POLISH, np, Trybuna Robotnicza, Katowice, 21 Jan 1970, pp 1, 3.  
JPRS 49941

Prospects for Fishing Industry Reviewed, by Zbigniew Wyczasny, 6 pp.  
POLISH, np, Zycie Gospodarcze, Warsaw, 1 Feb 1970, pp 1, 2.  
JPRS 50042

Observations on the Environmental Conditions Off the Georges Bank and Nantucket Areas in Connection With the Fishing Process, by T. T. Nalbant, 28 pp.  
RUMANIAN, per, Buletinul Institutului de Cercetari si Proiectari Piscicole, vol 27 no 4, 1968, pp. 75-92.  
\*USDI/BCF TT 70-56030

Law Regulating Economic Contracts Adopted, 12 pp.  
ROMANIAN, per, Buletinul Oficial al Republicii Socialiste Romania, Bucharest, Part 1, no 152, 29 Dec 1969, pp 2-5.  
JPRS 49931

Achievements, Prospects of Domestic Trade Reviewed, 5 pp.  
RUMANIAN, per, Comertul Modern, Bucharest, Jan 1970, pp 3-7.  
JPRS 50164

Industrial Centrals Enhance Foreign Trade, by Clement Gavrilescu, 12 pp.  
RUMANIAN, per, Finante si Credit, Bucharest, Jan 1970, pp 9-18.  
JPRS 50164

Need for Improving Bank Control Discussed, by Alexandru Oprea, 11 pp.  
RUMANIAN, per, Finante si Credit, Bucharest, Jan 1970, pp 19-28.  
JPRS 50164

New Designs Adopted for Village Shopping Centers, by I. Bucsa, 6 pp.  
RUMANIAN, np, Gazeta Cooperatiei, Bucharest, 6 Feb 1970, pp 1, 3.  
JPRS 50065

Present Tasks of the Financial Apparatus Outlined, by Florea Dumitrescu, 18 pp.  
RUMANIAN, per, Gazeta Finantelor, Bucharest, 24 Feb 1970, pp 1, 3-5.  
JPRS 50146

Development of Textile Industry Traced, 5 pp.  
RUMANIAN, per, Industria Textila, Bucharest, Vol 20, No 12, Dec 1969, pp 842-844.  
JPRS 50007

Training of Future Skilled Workers Discussed,  
by V. Alexandrescu, 11 pp.  
ROMANIAN, per, Lupta de clasa, Bucharest,  
Jan 1970, pp 64-70.  
JPRS 50004

Hints on Implementing New Five-Year Plan  
Given, by Gheorghe Siclovan, 16 pp.  
ROMANIAN, per, Probleme Economice, Bucharest,  
Nov 1969, pp 9-19.  
JPRS 50007

Plans for Chemical Industry Revealed, by  
Anton Moldoveanu, 17 pp.  
ROMANIAN, per, Probleme Economice, Bucharest,  
Nov 1969, pp 20-31.  
JPRS 50007

Mechanization and Automation Called Inadequate,  
by Vasile Popescu, 14 pp.  
ROMANIAN, per, Probleme Economice, Bucharest,  
Nov 1969, pp 32-42.  
JPRS 50007

Call for Strict Plan and Financial Discipline,  
by Radu Ciurileanu, 16 pp.  
ROMANIAN, per, Probleme Economice, Bucharest,  
Dec 1969, pp 5-16.  
JPRS 49944

Criteria Determining National Wealth Analyzed,  
by L. Turdenu, 7 pp.  
ROMANIAN, per, Revista de Statistica, Bucharest,  
Jan 1970, pp 28-33.  
JPRS 50146

Efficiency Stressed for Chemical Industry, by  
Alexandru Boaba, 6 pp.  
ROMANIAN, per, Scinteia, 15 Jan 1970, pp 1, 3.  
JPRS 49944

Priority Given to Timely Completion of Invest-  
ment Projects, by Mihai Diamandopol, 5 pp.  
ROMANIAN, np, Scinteia, Bucharest, 27 Jan 1970,  
pp 1, 3.  
JPRS 49941

Bulgarian Railroad Situation Surveyed, by  
Marin Bachkov, 9 pp.  
RUSSIAN, per, Zheleznodorozhnyy Transport, Moscow,  
No 9, 1969, pp 75-81.  
JPRS 49921

Aspects of 1964-1969 Living Standards Analyzed,  
by Josip Stahan, 19 pp.  
SERBO-CROATIAN, per, Ekonomist, Zagreb,  
No 4, Sept-Dec 1969, pp 989-1001, 1777.  
JPRS 50060

Shipping-Shipbuilding Consortium Proposed, by  
Ivo Pilat, 7 pp.  
SERBO-CROATIAN, per, Pomorstvo, Rijeka, No 10-12,  
Oct-Dec 1969, pp 361-362.  
JPRS 49944

Shipyards' Economic Position Reviewed, by  
Dusan Ramic, 10 pp.  
SERBO-CROATIAN, per, Pomorstvo, Rijeka, No 10-12,  
Oct-Dec 1969, pp 365-368.  
JPRS 49944

Results of 1966-1970 Development Plan are  
Mixed, by P. Bogdanic, 6 pp.  
SERBO-CROATIAN, np, Privredni Pregled,  
4 Feb 1970, p 8; 5 Feb 1970, p 2; 6 Feb 1970,  
p 6.  
JPRS 50003

Progress of Integration in Economy Reviewed, 7 pp.  
SERBO-CROATIAN, per, Privredni Pregled, Belgrade,  
No 4, 5 Mar 1970, p 11.  
JPRS 50107

Production of Cellulose Wood Reported as  
Adequate, 9 pp.  
SERBO-CROATIAN, np, Privredni Pregled,  
Belgrade, 12, 13 Mar 1970, p 11.  
JPRS 50164

Yugoslav, Czechoslovak Bank Consortium Outlined,  
by Ranko Rundo, 9 pp.  
SERBO-CROATIAN, per, Vesnik Jugoslevenske  
Investicione Banke, Nov 1969, pp 7-10.  
JPRS 50107

Yugoslav Commodity Transport Discussed, by  
Gvozden Sredic, 33 pp.  
SERBO-CROATIAN, per, Zeleznice, Belgrade, Dec 1969,  
pp 12-23.  
JPRS 49944

Eastern Europe  
Political

KAPO Discusses Causes of Suicides in Tepelene,  
by Hysni Kapo, 30 pp.  
ALBANIAN, per, Rruga e Partise, Tirana,  
Jan 1970, pp 57-83.  
JPRS 50200

Organized Party History Courses Analyzed,  
by Piro Kondi, 7 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana,  
3 Feb 1970, p 2.  
JPRS 50200

Relations with Developing Countries Reviewed,  
by Boris Balinov, 16 pp.  
BULGARIAN, per, Novo Vreme, Sofia, Dec 1969,  
pp 92-100.  
JPRS 49944

Role of Lenin, Revolution, Party in Literature  
Cited, by Vasil Kolevski, 7 pp.  
BULGARIAN, per, Novo Vreme, Sofia, No 2,  
Feb 1970, pp 16-29.  
JPRS 50011

Party Duties to Promote Discipline Stressed,  
8 pp.  
BULGARIAN, per, Partien Zhivot, Sofia, No 1, Jan  
1970, pp 3-8.  
JPRS 49942

Anti-Sovietism Defined as Principal Weapon  
Against Socialism, by Ludovit Pezlar, 6 pp.  
SLOVAK, np, Nove Slovo, Bratislava, 12 Feb 1970,  
pp 3, 8.  
JPRS 50032

Requirements for Unification of Youth Movement  
Explained, by Jiri Neubert, 7 pp.  
CZECH, np, Rude Pravo, Prague, 19 Feb 1970,  
p 4.  
JPRS 50064

Garandy's Theories Lead to Anti-Soviet Blind  
Alley, by Jindrich Filipek, Radovan Richta,  
6 pp.  
CZECH, np, Rude Pravo, Prague, 6 Mar 1970,  
p 6.  
JPRS 50200

Orthodoxy is Goal of New Students Union, by  
Jaroslav Skvaril, 5 pp.  
CZECH, np, Tvorba, Prague, 4 Feb 1970, p 4.  
JPRS 49942

Eastern Europe  
Political - Contd

Purpose of the Newly Established Creative  
Council Spelled Out, by Adolf Zabriský, 11 pp.  
CZECH, np, Tvorba, Prague, 29 Feb 1970, p 10.  
JPRS 50127

Destruction of Marxist-Leninist Philosophy  
Attempted, by Ladislav Hrzal, 12 pp.  
CZECH, per, Ustetelske Noviny, Prague,  
29 Jan 1970, Supplement, 8 pp.  
JPRS 50064

More on Matern September Church Policy Speech,  
by Hermann Matern, 7 pp.  
GERMAN, per, Begegnung, East Berlin, Nov 1969,  
pp 3-8.  
JPRS 49929

Maxi-Look Seen as 'Skipetarian' State Policy,  
by Rolf Italiaander, 6 pp.  
GERMAN, np, Christ und Welt, Stuttgart,  
9 Jan 1970, p 32.  
JPRS 50127

GDR Rejects Equal FRG Peace Treaty Role, by  
Gerhard Kegel, 10 pp.  
GERMAN, per, Einheit, East Berlin, Feb 1970,  
pp 188-194.  
JPRS 50032

Membership of GDR Election Commission  
Announced, 5 pp.  
GERMAN, per, Gesetzblatt der Deutschen  
Demokratischen Republik, East Berlin, Part I,  
No 3, 23 Jan 1970, pp 11-12.  
JPRS 50011

Technical Supervision Service Functions Named,  
5 pp.  
GERMAN, per, Gesetzblatt der Deutschen  
Demokratischen Republik, East Berlin, Part II,  
No 18, 23 Feb 1970, pp 141-142.  
JPRS 50164

Decree Sets Conditions for Forced Labor  
Penalty, 6 pp.  
POLISH, per, Dziennik Ustaw, Warsaw,  
No 1, Item, 5, 16 Jan 1970, pp 6-8.  
JPRS 50200

Eastern Europe  
Mediterranean

Eastern Europe  
Mediterranean

SEEM Commission Analyzes Parasitism in Poland,  
6 pp.  
POLISH, per, Prawo i Zycie, Warsaw, 5 Feb 1970,  
pp 3, 8.  
JPRS 50011

LAW Chairman Discusses Organization's Problems,  
by Zdzislaw Kurowski, 6 pp.  
POLISH, per, Zagadnienia i Materialy, Warsaw, 14-  
27 Jan 1970, pp 10-14.  
JPRS 49942

Working Class Role in Modern Romania Sketched,  
by George Burpat, 17 pp.  
ROMANIAN, per, Probleme Economice, Bucharest,  
Dec 1969, pp 27-39.  
JPRS 49942

Manescu Interviewed on Foreign Policy, by  
Adrian Ionescu, 10 pp.  
ROMANIAN, per, Romania Literara, Bucharest,  
29 Jan 1970, pp 1, 6-7.  
JPRS 50150

University Students' Anti-Social Acts Con-  
demned, by Omicron, 5 pp.  
ROMANIAN, np, Viata Studenteasca, Bucharest,  
4 Feb 1970, p 6.  
JPRS 50011

Imotsko Accused of Separatism, Chauvinism,  
by Drago Tovic, 6 pp.  
SERBO-CROATIAN, np, Vjesnik u Srijedu, Zagreb,  
28 Jan 1970, p 5.  
JPRS 49942

Importance, Organization of Sabotage Discussed,  
by Ahmed Hamzic, 6 pp.  
SERBO-CROATIAN, per, Vojni Glasnik, Belgrade,  
Dec 1969, pp 65-69.  
JPRS 50011

Mediterranean

Points of Emphasis in New Training Year Stated,  
by Ziril Kosev, 9 pp.  
BULGARIAN, per, Armeyaki Pregledi, Sofia, No 12,  
Dec 1969, pp 3-11.  
JPRS 49929

Winter Rifle Company Defense Exercise Described,  
by K. Yanchev, 15 pp.  
BULGARIAN, per, Armeyaki Pregledi, Sofia, No 12,  
Dec 1969, pp 41-48.  
JPRS 49929

Artillery Survey Fundamentals, 207 pp.  
GERMAN, bk, Grundlagen Der Artillerievermessung,  
1959, pp 1-224.  
ACSI J-8003  
FSTC-HT-23-733-70

Civil Defense.  
SERBO-CROATIAN, per, Narodna Obrana, 1969, pp 72-91.  
\*ACSI J-8236  
ID 2712002769

Role of Seapower in Nationwide Defense Discussed,  
by Milan Dorotka, 9 pp.  
SERBO-CROATIAN, per, Domorstvo, Rijeka, Oct-Dec  
1969, pp 357-359.  
JPRS 49929

Sociological

Teachers are Said to be Cynical Toward Criticism  
from Students, by Bekim Como, 5 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana, 24 Jan 1970,  
p 3.  
JPRS 50032.

Problems Encountered in 'Revolutionizing' Families,  
by Harilla Papaorgji, 6 pp.  
ALBANIAN, np, Zeri i Popullit, Tirana, 30 Jan 1970,  
pp 2-3.  
JPRS 50032

Study of Services in Burgas Area Reviewed, by  
Ivan Lalov, 6 pp.  
BULGARIAN, per, Narodni Suveti, Sofia, No 1,  
1970, pp 9-12.  
JPRS 50150

Innovative Teaching Techniques Discussed, by  
Konstantin Kostov, 11 pp.  
BULGARIAN, per, Novo Vreme, Sofia, Dec 1969,  
pp 37-46.  
JPRS 49944

Eastern Europe  
Sociological Council

Book Publication Circumstances Criticized, by  
Lamitur Lennov, 7 pp.  
BULGARIAN, per, Partien Zhivot, Sofia, No 2, Feb  
1970, pp 14-19.  
JPRS 50150

Causes for 1961-1965 Infant Mortality Reviewed,  
by Zdravko Bogdanov, 13 pp.  
BULGARIAN, per, Statistika, Sofia, Nov-Dec 1969,  
pp 48-57.  
JPRS 49929

Constitutional Provisions on Judiciary Amended,  
6 pp.  
CZECH, per, Sbirka Zakonu CSSR, Prague, Part 48,  
Item 55, 23 Dec 1969, pp 511-513.  
JPRS 49918

Law on Courts, Election of Judges Amended, 26 pp.  
CZECH, per, Sbirka Zakonu CSSR, Prague, Part 48,  
Item 156, 23 Dec 1969, pp 514-523.  
JPRS 49918

Increased Ministerial Powers Viewed as Injurious  
Stimulus, by Josef Podrouzek, 7 pp.  
CZECH, per, Tvorba, Prague, 4 Feb 1970, p 13.  
JPRS 49918

Work of East Berlin Abortion Commissions Described,  
by L. Waldeyer, 13 pp.  
GERMAN, per, Das Deutsche Gesundheitswesen, East  
Berlin, 9 Jan 1970, pp 28-32.  
JPRS 49929

November 1969 Sociology Meeting and Future  
Plans Reviewed, 11 pp.  
GERMAN, per, Einheit, East Berlin, Feb 1970,  
pp 195-202.  
JPRS 50127

Characteristics of Writers' Journal Discussed,  
by Vilmos Farago, 5 pp.  
HUNGARIAN, per, Elet es Irodalom, Budapest,  
14 Feb 1970, p 7.  
JPRS 50200

Director Comments on Sociological Series,  
by Janos Forgas, 10 pp.  
HUNGARIAN, per, Tarsadalmi Szemle, Budapest,  
Feb 1970, pp 63-68.  
JPRS 50064

Eastern Europe  
Sociological Council

Primary, Secondary School Issues Discussed,  
11 pp.  
POLISH, per, Glos Nauczycielski, Warsaw,  
8 Mar 1970, pp 1, 2.  
JPRS 50200

Polish Praises Payers for Mistakes of Critics, by  
Stefan Melkowski, 5 pp.  
POLISH, per, Wspolczesnosc, Warsaw, 7-29 Jan 1970,  
p 10.  
JPRS 49929

Students Pelled to Choice of Subjects,  
Teaching Methods, by K. Giesick, 6 pp.  
POLISH, per, Zycie Szkoły Jyzwej, Warsaw,  
Jan 1970, pp 106-111.  
JPRS 50064

Penalties Cited for Violation of Fire Prevention  
Regulations, 9 pp.  
ROMANIAN, per, Buletinul Oficial al Republicii  
Socialiste Romania, Bucharest, 24 Dec 1969,  
pp 2-6.  
JPRS 50106

Penalties Cited for Disturbing the Peace, 5 pp.  
ROMANIAN, per, Buletinul Oficial al Republicii  
Socialiste Romania, Bucharest, 24 Dec 1969,  
pp 12-13.  
JPRS 50106

Penalties Set for Violation of Rules on Regis-  
tration, 5 pp.  
ROMANIAN, per, Buletinul Oficial al Republicii  
Socialiste Romania, Bucharest, 24 Dec 1969, pp 13-14.  
JPRS 50106

Narcotics Control Law Approved, 8 pp.  
ROMANIAN, per, Buletinul Oficial al Republicii  
Socialiste Romania, Bucharest, Part 1, No 152,  
29 Dec 1969, pp 12-14.  
JPRS 49929

Current Literature Must Reflect Social Reality,  
by Adriana Mitescu, 7 pp.  
ROMANIAN, per, Lupta de clasa, Bucharest,  
Jan 1970, pp 71-75.  
JPRS 50044

Minister Discusses Tasks in Field of Health  
Care, 11 pp.  
ROMANIAN, per, Muncitorul Sanitar, Bucharest,  
3 Feb 1970, pp 1, 2.  
JPRS 50127

Shortcomings in Fire-Fighting Activity Analyzed,  
by Ramfil Tatu, 5 pp.  
ROMANIAN, per, Faza Contra Incendiarilor, Bucharest,  
Vol 42, Series II, No 1, Jan 1970, pp 1, 2.  
JPRS 50032

Church Trying to Reconcile Past and Present,  
by Petar Segvic, 13 pp.  
SERBO-CROATIAN, per, Nase Tome, Zagreb,  
Jan 1970, pp 104-119.  
JPRS 50044

Civilian, Military Secondary Schools Compared,  
by Djordje Stanic, 9 pp.  
SERBO-CROATIAN, per, Vojni Glasnik, Belgrade,  
Dec 1969, pp 55-61.  
JPRS 50011

WESTERN EUROPE  
Economic

Place and Future of Aquaculture in the French and  
World Fisheries, by J. Monusnier.  
FRENCH, per, Le Pêche Maritime, No 48 (1099), 1969,  
pp 739-742.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 124

Marketing Research of the Fishing Industry, by  
H. Goeben.  
GERMAN, per, Allgemeine Fischwirtschaftszeitung,  
Vol 21, No 33, 31 Oct 1969, pp 38-44.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 121

Model for the Production Process in Deep-  
Sea Fishing, by D. Laube, 5 pp.  
GERMAN, per, Seewirtschaft, vol 1, no 12  
1969, pp. 980-984.  
\*CFSTI TT 70-55075  
Available from BCF

Position of CP One Year After Congress  
Reviewed, by Ib Norlund, 3 pp.  
DANISH, np, Land og Folk, Copenhagen,  
20, 21 Feb 1970, p 2.  
JPRS 50066

CP Foreseen as Party of the Future, by  
Aarne Saarinen, 7 pp.  
FINNISH, np, Kansan Uutiset, Helsinki, 15 Feb 1970,  
p 10.  
JPRS 50036

Belgian Communists Favor Unity of Progressives,  
by Marc Drumsaux, 8 pp.  
FRENCH, np, Le Drapeau Rouge, Brussels,  
6 Feb 1970, p 5; 13 Feb 1970, p 5; 20 Feb 1970,  
p 5.  
JPRS 50094

Published Works of Roger Garaudy: A Brief Review,  
by Claude Harmel, 7 pp.  
FRENCH, per, Est et Ouest, Paris, 16-31 Jan 1970,  
pp 4-8.  
JPRS 50101

Political Demise of Jacques Grippa, Europe's  
Pioneer Maoist, by Branko Lazitch, 7 pp.  
FRENCH, per, Est et Ouest, Paris, 16-31 Jan 1970,  
pp 8-11.  
JPRS 50101

Garaudy's Book on Break with Soviet Line  
Sampled, by Michel Bassi, 10 pp.  
FRENCH, np, Le Figaro, Paris, 24 Feb 1970,  
p 5.  
JPRS 50094

Communist Leaders Debate Role of Intellectuals,  
11 pp.  
FRENCH, np, L'Humanite, Paris, 6 Mar 1970,  
p 8.  
JPRS 50209

Trotskyite Group Holds International Con-  
ference, 52 pp.  
FRENCH, per, Sous le Drapeau du Socialisme,  
Paris, Dec 1969-Jan 1970, pp 1-18.  
JPRS 50066

Dissident Communist Party of Belgium Issues  
Resolution, 17 pp.  
FRENCH, per, La Voix du Peuple, Brussels,  
Feb 1970, pp 3-6.  
JPRS 49976



Conference of Institute for Marxist Studies,  
Research held, 6 pp.  
GERMAN, per, Berliner Extra-Dienst, West Berlin,  
25 Feb 1970, pp 8-10.  
JPRS 50137

Ci Writer Appraises Class Struggle in France,  
by Hans Wetzler, 8 pp.  
GERMAN, per, Weg und Ziel, Vienna, No 2, vol 27,  
Feb 1970, pp 31-34.  
JPRS 50101

Fischer Writes on Democratic Socialism,  
by Ernst Fischer, 6 pp.  
GERMAN, per, Wiener Tagebuch, Vienna,  
Jan-Feb 1970, pp 5-6.  
JPRS 50066

Liberal Communists Express Views on Voting,  
7 pp.  
GERMAN, per, Wiener Tagebuch, Vienna,  
Jan-Feb 1970, pp 14-16.  
JPRS 50066

Split in Union of Italian Communists (M-L)  
Barred, by Fabrizio Dentice, 5 pp.  
ITALIAN, np, l'Espresso, Rome, 8 Feb 1970,  
p 5.  
JPRS 49976

Speech by Pro-Chinese Party Leader Reviewed,  
5 pp.  
ITALIAN, np, Nuova Unità, Rome, 20 Jan 1970,  
pp 1, 4.  
JPRS 50094

Expulsion of Dissidents from Party Urged,  
by Livio Risaliti, 5 pp.  
ITALIAN, np, Nuova Unità, Rome, 20 Jan 1970,  
pp 1, 4.  
JPRS 50094

Italian Cc Comments on French Party Congress,  
by Franco Bertone, 7 pp.  
ITALIAN, per, Rinascita, Rome, 13 Feb 1970,  
pp 8-9.  
JPRS 50036

Current Issues Viewed in Light of Leninism,  
by Aldo Tortorella, 13 pp.  
ITALIAN, per, Rinascita, Rome, 27 Feb 1970, pp 12-  
14.  
JPRS 50101

Workers are Imperialism's Weakness, Writer Says,  
by Paolo Santi, 7 pp.  
ITALIAN, per, Rinascita, Rome, 27 Feb 1970,  
pp 21, 22.  
JPRS 50137

Ci Writer Sees Gramsci as True Prophet of Lenin,  
by Achille Occhetto, 9 pp.  
ITALIAN, per, Rinascita, Rome, 27 Feb 1970,  
pp 23-24.  
JPRS 50137

Roaring of Magazine Editor's Dismissal Discussed,  
by Adriano Guerra, 6 pp.  
ITALIAN, per, Rinascita, Rome, 27 Feb 1970,  
pp 34-35.  
JPRS 50139

Swedish Ci and Internationalism Discussed, 6 pp.  
SWEDISH, per, By Lag, Stockholm, 25-26 Feb 1970,  
pp 8, 9.  
JPRS 50139

#### Military

The New French Civil Defense Director,  
M. Jean Perea-Pradier, and the 1970 Budget for  
Civil Defense.  
FRENCH, per, Protection Civile et Securite  
Industrielle, No 182, Dec 1969, pp 7-10.  
\*ACSI J-8170  
ID 2204005670

a) Soviet Offensive in the Mediterranean  
b) The Armament of the Warsaw Pact Ground Forces .  
GERMAN, per, Soldat und Technik, No 10, 1967,  
pp 525-548.  
NAV/NIC/Tr-3009-70

c) Innovations in Soviet Air Armament  
d) Innovations Also in Soviet Naval Armament, by  
Siegfried Breyer.  
GERMAN, per, Soldat und Technik, No 10, 1967,  
pp 525-548.  
NAV/NIC/Tr 3009-70

e) Recognition Quiz.  
GERMAN, per, Soldat und Technik, No 10, 1967,  
pp 525-548.  
NAV/NIC/Tr-3009-70

Austrian Civil Defense is Drawn Up, by Josef Hans.  
GERMAN, per, Ziviler Bevölkerungsschutz, Dec 1969,  
pp 4-9.

\*ACSI J-8216

ID 2204006270

Austrian Civil Defense. Part 1. Austria's Civil  
Defense Latches Up, by Josef Hans.  
GERMAN, rpt, Ziviler Bevölkerungsschutz, Jan 1970,  
pp 3-7.

\*ACSI J-8240

ID 2204006470

AFRICANA  
JPRS 50017

Morocco to Reduce Taxes, Restrict Bank Credit in  
1974 (Africa), 7 pp.  
AFABLO, np, Al-Atam, Rabat, 31 Dec 1969, pp 1, 7.  
JPRS 50017

Writer Examines Role of Private Enterprise,  
(Senegal), by Joel Decupper, 11 pp.  
FRENCH, per, Africa, Dakar, No 49, 1970,  
pp 9-16.  
JPRS 50202

Role of Trade Unions in Arab Countries Dis-  
cussed, (Africa), by Abderrazak Benhadji, 5 pp.  
FRENCH, per, Algerie Actualite, Algiers,  
22-26 Feb 1970, pp 5-6.  
JPRS 50126

Implementation of 1965-1968 Plan Reported,  
(Africa), 7 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Paris,  
24 Dec 1969, pp 11703-11706.  
JPRS 49935

Data on 1968 Foreign Trade: Improvement Noted,  
(Africa), 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Paris,  
21 Jan 1970, pp 11758-11760.  
JPRS 50035

Common Market Industrial Aid to Africa Analyzed,  
(Inter-Africa), 4 pp.

FRENCH, per, Bulletin de l'Afrique Noire, Paris,  
21 Jan 1970, pp 11771-11773.  
JPRS 50151

Plans Implemented for Increased Timber Pro-  
duction, (Cameroon), 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire,  
Paris, 28 Jan 1970, pp 11783-11785.  
JPRS 50151

1970 Deficit Report, Recovery Measures Discussed,  
(Africa), 4 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Paris,  
16 Feb 1970, pp 11834-11842.  
JPRS 50076

Statistical Survey of Mauritanian Economy,  
(Mauritania), 17 pp.  
FRENCH, per, Bulletin de l'Afrique Noire,  
Paris, 25 Feb 1970, pp 11856-11874.  
JPRS 50151

Economic Future of the Congo Contemplated. (Africa),  
by Michel Norro, 7 pp.  
FRENCH, per, Cahiers Economiques et Sociaux,  
Kinshasa, Sept 1969, pp 309-314.  
JPRS 49920

Cabinet Member Views Future Developments,  
(Malagasy Republic), 5 pp.  
FRENCH, np, Le Courrier de Madagascar,  
Tananarive, 9 Feb 1970, pp 1-2; 10 Feb 1970,  
pp 1-2.  
JPRS 50151

Official Discusses Reorganization of Commerce,  
(Malagasy Republic), 7 pp.  
FRENCH, np, Le Courrier de Madagascar,  
Tananarive, 17, 18, 19 Feb 1970, pp 1-2.  
JPRS 50151

Minister Rajaonarivelo Reports on Health,  
(Malagasy Republic), 9 pp.  
FRENCH, per, Le Courrier de Madagascar,  
Tananarive, 27 Feb 1970, pp 1-2; 28 Feb-1 Mar  
1970, pp 1-2; 2 Mar 1970, pp 1-2.  
JPRS 50205

Finance Minister Discusses 1970 Budget,  
(Mali), by Louis Negro, 12 pp.  
FRENCH, per, L'Essor, Bamako, 25 Feb 1970,  
pp 1, 3-4.  
JPRS 50196

Economic Report on the Malagasy Republic, (Africa),  
15 pp.  
FRENCH, np, Informations d'outre-Mer, Paris,  
22 Oct 1969, pp 11-12, 29 Oct 1969, p 11; 5 Nov  
1969, pp 11-12; 19 Nov 1969, pp 9-11; 3 Dec 1969,  
pp 11-12; 10 Dec 1969, pp 10-11; 24 Dec 1969,  
pp 10-11; 31 Dec 1969, pp 11-12.  
JPRS 49935

Report Issue on Malagasy Fishing Development,  
(Africa), 11 pp.  
FRENCH, per, Info Madagascar, Tananarive,  
14 Feb 1970, pp 1-8.  
JPRS 50126

Cadres' Shortage Highlights Economic Difficulties,  
(Africa), by Philippe Simonnot, 6 pp.  
FRENCH, np, Le Monde de l'Economie, Paris, 17 Feb  
1970, pp 1, 3.  
JPRS 49950

Present Economic Difficulties no Bar to Optimism,  
(Africa), 5 pp.  
FRENCH, per, Moniteur Africain, Dakar, 12 Feb 1970,  
p 9.  
JPRS 50017

Foreign Trade Statistics of UDEAO Countries,  
(Inter-Africa), 5 pp.  
FRENCH, np, Le Moniteur Africain, Dakar,  
12 Feb 1970, p 10.  
JPRS 50151

Relations with France Open New Foreign aid Vistas,  
(Africa), 5 pp.  
FRENCH, np, Moniteur Africain, Dakar, 19 Feb 1970,  
p 8.  
JPRS 50076

Four-Year Plan Excerpts, Preamble Given, (Africa),  
18 pp.  
FRENCH, np, El Moudjahid, Algiers, 21 Jan 1970,  
pp 3-4.  
JPRS 49950

Port of Algiers Improves Dockworkers' Lot,  
(Africa), by Ahmed Larbi, 5 pp.  
FRENCH, np, El Moudjahid, Algiers, 13 Feb 1970,  
p 3.  
JPRS 50076

El-Aouinet Submits Projects for Four-Year  
Plan, (Africa), by Salim Mestah, 9 pp.  
FRENCH, np, An Nasr, Constantine, 27 Jan 1970,  
p 4; 30 Jan 1970, p 4.  
JPRS 50005

Town Official Reports on Progress in Annaba,  
(Africa), 8 pp.  
FRENCH, np, An Nasr, Constantine, 31 Jan 1970,  
p 8; 1-2 Feb 1970, p 5.  
JPRS 50005

Workers' Purchasing Power not Hurt by Price  
Hikes, (Africa), by T. A., 5 pp.  
FRENCH, per, Revolution Africaine, Algiers, 14-20  
Feb 1970, p 17.  
JPRS 50076

Rwandan Development Bank Official Interviewed,  
(Africa), 7 pp.  
FRENCH, per, Rwanda Carrefour d'Afrique,  
Kigali, Nov-Dec 1969, pp 7-9.  
JPRS 50005

Report on Dam Construction Progress, (Morocco),  
9 pp.  
FRENCH, np, La Vie Economique, Casablanca,  
27 Feb 1970, pp 1, 3.  
JPRS 50202

#### Political

Former Colonial Practices Still Persist Among  
Municipal Bodies, (Africa), 6 pp.  
ARABIC, per, al-Mujahid, Algiers, 8 Feb 1970,  
pp 4-5.  
JPRS 50126

Prime Minister Speaks on National Cohesion,  
(Africa), by Bahi Ladgham, 12 pp.  
FRENCH, np, l'Action, Tunis, 22 Jan 1970, p 5.  
JPRS 49920

Tunisian Foreign Minister Views Palestine Crisis, (Africa), by Habib Bourguiba, Jr., 14 pp.  
FRENCH, np, L'Action, Tunis, 28 Jan 1970, p 5.  
JPRS 49935

No Reason for Arms Race, Wars, Premier Holds, (Africa), by Bahi Ladgham, 6 pp.  
FRENCH, per, L'Action, Tunis, 31 Jan 1970, pp 1-4.  
JPRS 49920

President Discusses Problems with the People, (Ivory Coast), by Paulin Joachim, 6 pp.  
FRENCH, per, Bingo, Dakar, Feb 1970, pp 14-17.  
JPRS 50202

Decree Lists Functions of Diplomatic Personnel, (Morocco), 18 pp.  
FRENCH, per, Bulletin Officiel, Rabat, 4 Feb 1970, pp 218-223.  
JPRS 50190

Data on Frolinat, French Interests Given, (Africa), by Cecile Ranaut, 5 pp.  
FRENCH, per, Croissance des Jeunes Nations, Paris, Feb 1970, pp 19-26.  
JPRS 50076

Border Incidents Involving Portuguese Discussed, (Africa), by Ernest Milcent, 5 pp.  
FRENCH, per, Croissance des Jeunes Nations, Paris, Feb 1970, pp 36-38.  
JPRS 50126

Senghor Addresses CAP-VERT Chamber of Commerce, (Africa), 8 pp.  
FRENCH, np, Dakar-Matin, Dakar, 23 Jan 1970, p 4.  
JPRS 50005

The End of Biafra and the Soviet Union, (Africa), by Nicolas Lang, 5 pp.  
FRENCH, per, Est et Ouest, Paris, 1-15 Feb 1970, pp 1-3.  
JPRS 50076

President Discusses Development of the Revolution, (Africa), by Ahmed Sekou Toure, 22 pp.  
FRENCH, per, Horoya-Hebdo, Conakry, 24-30 Jan 1970, pp 3-33.  
JPRS 49920

National Council of the Revolution Adopts Motion, (Africa), 15 pp.  
FRENCH, per, Horoya Hebdo, Conakry, 31 Jan-6 Feb 1970, pp 7-15.  
JPRS 50005

Duties and Composition of AFN High Command Given, (Africa), 5 pp.  
FRENCH, per, Journal Officiel de la Republique du Congo, Brazzaville, 15 Nov 1969, pp 541-542.  
JPRS 50017

Senegal Adopts Constitutional Revisions, (Senegal), 12 pp.  
FRENCH, per, Journal Officiel de la Republique du Senegal, Dakar, 28 Feb 1970, pp 230-232.  
JPRS 50205

Decree Concerning Organization of the Presidency, (Senegal), 5 pp.  
FRENCH, per, Journal Officiel de la Republique du Senegal, Dakar, 7 Mar 1970, pp 234-235.  
JPRS 50202

Decree Concerning Organization of Prime Minister's Services, (Senegal), 5 pp.  
FRENCH, per, Journal Officiel de la Republique du Senegal, Dakar, 7 Mar 1970, pp 238-240.  
JPRS 50202

Future of Restored French-Moroccan Relations, (Africa), by Philippe Herremann, 7 pp.  
FRENCH, per, Le Monde, Paris, 10 Feb 1970, pp 1, 3.  
JPRS 49935

Party Cadres' Conference Report, Resolution Approved, (Africa), 7 pp.  
FRENCH, np, El Moudjahid, Algiers, 25-26 Jan 1970, p 4.  
JPRS 49950

Boumediene Addresses Meeting of APC Residents, (Africa), 10 pp.  
FRENCH, np, El Moudjahid, Algiers, 6 Feb 1970, p 3.  
JPRS 50075

Minister Stresses Importance of Decentralization, (Africa), 7 pp.  
FRENCH, np, El Moudjahid, Algiers, 8-9 Feb 1970, p 3.  
JPRS 50075

Premier Ladgham Speaks on Maghreb Unity, (Africa), 5 pp.  
FRENCH, np, La Presse, Tunis, 31 Jan 1970, p 5.  
JPRS 50017

Italian Communist Paper Reports on Insurgency, (Africa), by Romano Lenda, 5 pp.  
ITALIAN, np, L'Unita, Rome, 4 Feb 1970, p 7.  
JPRS 49920

Comoro Militant Youth Message to French Government, (Africa), 5 pp.  
FRENCH, np, La Presse Malagasy, Tananarive, 2 Feb 1970, pp 4-5; 3 Feb 1970, p 7; 5 Feb 1970, p 12; 6 Feb 1970, p 7; 7 Feb 1970, p 7; 9 Feb 1970, p 7.  
JPRS 50076

Political Developments in Afro-Asian States Cited, by D. Zarine, 11 pp.  
RUSSIAN, per, Politicheskoye Samooobrazovaniye, Moscow, No 12, 1969, pp 102-107.  
JPRS 50160

Labor Leader Interviewed on New Union, (Algeria), 5 pp.  
FRENCH, per, Revolutions et Travail, Algiers, 24 Feb 1970, pp 10-11.  
JPRS 50196

Allal el Fassi's Political Activities Discussed, (Africa), by Attilio Gauio, 14 pp.  
FRENCH, per, Revue Francaise d'Etudes Politiques Africaines, Paris, Dec 1969, pp 73-91.  
JPRS 49950

Commentary on Cabinet Reshuffle, Municipal Elections, (Africa), by Philippe Leymarie, 5 pp.  
FRENCH, per, Revue Francaise d'Etudes Politiques Africaines, Paris, Jan 1970, pp 3-8.  
JPRS 49750

History and Situation of Comoro Islands Reviewed, (Comoro Islands), by Gerald Donque, 13 pp.  
FRENCH, per, Revue Francaise d'Etudes Politiques Africaines, Paris, Feb 1970, pp 39-51.  
JPRS 50151

Kongo-Central Province Results, Plans Reviewed, (Africa), 7 pp.  
FRENCH, per, La Tribune Africaine, Kinshasa, 31 Dec 1969-2 Jan 1970, p 19.  
JPRS 50057

Morocco Concluded Total of 24 Air Agreements, (Morocco), 7 pp.  
FRENCH, per, Le Vie Economique, Casablanca, 20 Feb 1970, pp 1, 4.  
JPRS 50196

East German Delegation Reports on Brazzaville Visit, (Africa), 6 pp.  
GERMAN, per, Horizont, East Berlin, Jan 1970, pp 4-5.  
JPRS 50126

Military

Libyan Officers Transferred to Civil Service and Retired, (Africa), 6 pp.  
ARABIC, per, al-Jaridah ar-Rasmiyah, Tripoli, 25 Jan 1970, pp 3-12.  
JPRS 50017

Civil Aviation Regulations Amended by Decree, (Africa), 14 pp.  
FRENCH, per, Bulletin Officiel, Rabat, 11 Feb 1970, pp 252-256.  
JPRS 50126

Problems in Training African Cadres Examined, (Africa), by Jean-Claude Reverdy, 15 pp.  
FRENCH, per, Geneve-Afrique, Geneva, Vol 8, No 2, 1969, pp 3-17.  
JPRS 50093

Review of Foreign Military Assistance Published, (Africa), by Clement Nizonce, 5 pp.  
FRENCH, per, Lokala Ya Arnee Congolaise, Congo Kinshasa, 25 Dec 1969-1 Jan 1970, pp 1, 3, 8.  
JPRS 50076

Libya to Get Both Guns and Butter, (Libya), by Arminio Savioli, 6 pp.  
ITALIAN, np, L'Unita, Rome, 8 Mar 1970, p 3.  
JPRS 50202

2. Al-Amin, Abu, Abdullah, Devel, part of Abdullah,  
Al-Amin, (Africa), by Al-Amin, Al-Amin,  
Al-Amin, part, Al-Amin, Al-Amin, Al-Amin,  
Al-Amin.  
 3. Al-Amin.

See also: 11-2. Style in Sphere Examined,  
(African), 11-1.  
AG-10, per, Ann-Su 10, Algiers, 10 Jan. 1971,  
11-1, 11-2.  
SPS 10-10

housing shortage, later supply problems in  
 Constantine, (Africa), by Muhammad al-Salhi,  
 1-13.  
 ARABIC, per, al-Jahid, Algiers, Feb 1970,  
 pp 12-13.  
 JPRS 50126

Algiers National Library Meets Citizens' Needs,  
(Algeria), by Umar Fallahi, 6 pp.  
ARABIC, per, al-Mujahid, Algiers, 22 Feb 1970,  
pp 38-40.  
JPRS 50151

Development Hindered by Traditional Structures,  
(Africa), by Jean-Claude Froelich, 11 pp.  
FRENCH, per, Geneve-Afrique, Geneva, Vol 8,  
No 2, 1969, pp 36-46.  
JPRS 50093

Education Goals of Four-Year Plan Reported,  
(Africa), 9 pp.  
FRANCE, np, al Koudjahid, Algiers, 28 Jan 1970,  
pp 1, 3; 29 Jan 1970, pp 1, 3; 30 Jan 1970, p 3.  
JAN 49935

Development in Oasis Region Reported, (Africa),  
by Khaled Safer, 11 pp.  
REVEN, per, Revolution Africaine, Algiers, 24-  
31 Jan 1970, pp 13-21.  
JPRS 40935

Higher Education, College Reform Discussed,  
(Africa), by Pardane Cuares, 5 pr.  
FRENCH, per, Revolution Africaine, Algiers,  
14-20 Feb 1970, pp 22-23.  
JPRS 60124

Chinese Influence on Egouabi Seen Increasing,  
(Africa), by Peter-Hannes Lehmann,  
Max Scheler, 6 pp.  
ZEPHUS, per, Der Stern, Hamburg, 15 Feb 1970,  
pp 3, 36, 38, 185.  
JPRS 50093

Biographic Information on New Cabinet Members,  
(Senegal), 6 pp.  
FRENCH, np, Dakar-Matin, Dakar, 4 Mar 1970,  
p 3.  
JPRS 50151

## METHODS

### *Subjects*

Construction, Development Projects Reviewed,  
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ARABIC, np, Al-Ahram, Cairo, 22 Feb 1970,  
p 7.  
JPRS 50207

Gigantic Deficit Overcome, Balance of Trade  
favorable, Egypt Claims, 50 pp.  
ARABIC, np, al-Ahram, Cairo, 20, 21, 22, 23, 24  
Dec 1969, pp 5, 5, 4, 5, 5, respectively.  
JMS 50137

Article Suggests Restricting Exports to Profitable Items Only, by Jamal Mahmud, 7 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, Cairo, 1 Dec 1969, pp 36-39.  
JPRS 44943

Port Said Workers Win Race with Time in  
Relocating Factory, by Ibrahim Rashid, 7 pp.  
APASIC, np, Akhbar al-Yawm, Cairo, 31 Jan  
1970, p 11.  
JPRS 49997

Tunisian Budget for 1970 Marked by New Features,  
(Africa), 16 pp.  
ARABIC, per, al-'Amal, Tunis, 31 Dec 1969, pp 4-5.  
JPRS 49920

Saudi Industrial Center Seen as Great Boon to Economy, 9 pp.  
ARADIC, np, al-Hilal, Jidda, 29 Dec 1969, p 5.  
JPRS 50037

Decrees Issued on Census, Petroleum Affairs,  
6 pp.  
ARABIC, per, Ad-Dawhah, Ad-Dawhah, 5 Feb  
1970, pp 46-47.  
JPRS 50186

Jordan to Spend Twenty-Five Million Dinars on Development in FY 1970, 6 pp.  
ARABIC, np, ad-Dustur, Amman, 18 Jan 1970, pp 1, 6.  
JPRS 49943

Analysis of Employment Situation in 1969, Expectation for 1970, by Hanch Smith. 5 pp.  
ENGLISH, rpt, Avodah Wabituah Leumi Yarhon Misrad Ha'avodah, Jerusalem, 15 Feb 1969, pp 102-103.  
JPRS 50137

Jordan's Budget Requirements for FY 1970 Listed, 9 pp.  
ARABIC, np, ad-Dustur, Amman, 18 Jan 1970, pp 1, 7.  
JPRS 49943

Salary Increases Decreed for All Civil, NPDD Personnel, 7 pp.  
GREEK, np, To Vima, Athens, 7 Feb 1970, p 7.  
JPRS 50092

Nasir Recognizes UAR Provincial Budgets, 8 pp.  
ARABIC, per, Al-Jaridah Al-Rasmiyah, Cairo, 4 Dec 1969, pp 1001, 1003, 1004.  
JPRS 49960

Turkish Tobacco Companies Not Paying Taxes, by Orhan Tokatli, 5 pp.  
TURKISH, np, Milliyet, Istanbul, 23 Jan 1970, p 1.  
JPRS 50095

Egyptian River Transport Organization Created, 5 pp.  
ARABIC, per, al-Jaridah al-Rasmiyah, Cairo, 29 Jan 1970, pp 78-79.  
JPRS 50207

Political

Index of Tables, 26 pp.  
ARABIC, bk, A Report on the General Survey of Companies Operating in Iraq for the Years 1919-1968, Baghdad, Apr 1969, 45 pp.  
JPRS 50099

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ARABIC, np, Al-Ahram, Cairo, 17 Feb 1970, p 5.  
JPRS 50137

Statistics Reflecting Need for Capital Investments in Iraq, 11 pp.  
ARABIC, bk, A Report on the General Survey of Companies Operating in Iraq for the Years 1919-1968, Baghdad, Apr 1969, 45 pp.  
JPRS 50099

Arabs Must Cause U.S. Strategy Change, 8 pp.  
ARABIC, np, Al-Ahram, Cairo, 18 Feb 1970, p 5.  
JPRS 50137

Development of Egyptian RR System Shown in Statistics, 15 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah wa al-Ihsa'i, Cairo, Sept 1969, pp 24-36.  
JPRS 50092

Kuwait Affirms Support for Arabs, Condemns U.S. Aid to Israel, 6 pp.  
ARABIC, np, al-Ahram, Cairo, 21 Feb 1970, p 6.  
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Statistical Analysis of UAR Industrial Progress, 32 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah wa al-Ihsa'i, Cairo, Sept 1969, pp 55-86.  
JPRS 50092

New Kuwait Civil Service Bill Faces Opposition in National Assembly, 5 pp.  
ARABIC, np, al-Ahram, Cairo, 21 Feb 1970, p 8.  
JPRS 50147

Statistical Study of Egypt's Foreign Loan Personnel Program, 14 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah wa al-Ihsa'i, Cairo, Nov 1969, pp 1-15.  
JPRS 50042

Bahrainian Intellectuals' Role in National Liberation Movement, 9 pp.  
ARABIC, np, al-Hurriyah, Beirut, 9 Feb 1970, pp 6-7, 15.  
JPRS 50147

Cairo Radio Reviews its 1969 Broadcasts, by 'Abd Al-Razzaq Qandil, Hasan Mahsib, 7 pp.  
ARABIC, per, Al-Itha'ah wa Al-Talifisium, 10 Jan 1970, pp 4-5.  
JPRS 50048

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Political Council

Middle East  
Political Council

Methods to Counteract Rumors Outlined, 7 pp.  
ARABIC, per, Al-Ishtiraki, Cairo, 4 Oct 1969,  
pp 10-11.  
JPRS 49936

University's Role in Socialist Society Discussed,  
by Jabir Jab 'Abd ar-Rahman, 8 pp.  
ARABIC, per, Al-Ishtiraki, Cairo, 1 Nov 1969,  
pp 8-9.  
JPRS 49936

UAR Ratifies Communications Pact with Germany,  
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ARABIC, per, Al-Jaridah Al-Rasmiyah, Cairo,  
4 Dec 1969, pp 996-999.  
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America Called the Arabs' True Enemy, by  
Kamal Rif'at, 11 pp.  
ARABIC, np, Al-Jumhuriyah, Cairo, 29 Jan 1970,  
p 16.  
JPRS 49936

Kuwait, Saudi Arabia to Divide Neutral Zone,  
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ARABIC, per, Al-Kuwait Al-Yawm, Kuwait,  
25 Jan 1970, pp 1-3.  
JPRS 49997

Kuwait Seeks Solutions to Government Service  
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ARABIC, np, ar-Ra'y al-'Amm, Kuwait, 21 Jan 1970,  
p 7.  
JPRS 50037

Cairo is Carefree with Phony Prosperity Under  
the Bombs, by Thierry Desjardins, 7 pp.  
FRENCH, np, Le Figaro, Paris, 27 Feb 1970,  
p 12.  
JPRS 50186

King Husayn Analyzes Arab-Israeli Conflict,  
by Jean Wolf, 5 pp.  
FRENCH, per, Remarques Africaines, Brussels, 20  
Feb 1970, pp 76-77.  
JPRS 50117

Aims of Palestine Liberation Movement Explained,  
by Jean Wolf, 7 pp.  
FRENCH, per, Remarques Africaines, Brussels, 20  
Feb 1970, pp 78-81.  
JPRS 50117

Current United Report on Al-Fatah Group,  
by Urs Haldemann, 5 pp.  
GERMAN, per, Berliner Extra Dienst,  
West Berlin, 19 Feb 1970, pp 9-10.  
JPRS 50049

Impressions of Al-Fatah Reported, by  
Klaus Dieter Kroeber, 6 pp.  
GERMAN, per, Unsere Zeit, Essen, 5 Feb 1970,  
pp 17-18.  
JPRS 49997

Histadrut Secretary Outlines Organization  
Aims, 9 pp.  
HEBREW, per, Bamahaneh, Tel Aviv, 27 Jan 1970,  
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JPRS 50186

Youthful New Members Discuss Knesset Reform,  
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HEBREW, per, Bamahaneh, Tel Aviv, 27 Jan 1970,  
pp 16-17, 31.  
JPRS 50186

Article on 'National-Palestine Pact' promulgated,  
by Soker, 9 pp.  
YIDDISH, per, Folk un Zion, Jerusalem No 5, Jan  
1970, pp 10-15.  
JPRS 50037

Political Majority in Israel Seen as Stable,  
Conservative, Moderate, by N. Hurvits, 8 pp.  
YIDDISH, per, Folk un Zion, Jerusalem, Nov 1969,  
pp 5-9.  
JPRS 49943

Meir Yaati Makes Proposals to Mapai Committee,  
by Meir Yaari, 13 pp.  
HEBREW, np, Al Hamishmar, Tel Aviv, 23 Jan 1970,  
p 2.  
JPRS 49919

Party Gives Views on Wages, Tax Proposals,  
6 pp.  
HEBREW, np, Haolam Hazeh, Tel Aviv, 4 Feb 1970,  
insert.  
JPRS 50048

Israeli Communists Champion Soviet Solution  
to NE Problem, 5 pp.  
YIDDISH, np, Der Veg, Tel Aviv, 21 Jan 1970,  
pp 2, 3.  
JPRS 49997



Middle East  
Political (Contd)

Military Escalation Occurs During Peace  
Efforts, by Meir Wilner, 12 pp.  
HEBREW, np, Zo Haderekh, Tel Aviv, 28 Jan  
1970, pp 4, 5.  
JPRS 50048

Text of New Iranian Copyright Bill Presented,  
6 pp.  
PERSIAN, np, Keyhan, Tehran, 31 Dec 1969, p 12.  
JPRS 49936

Military

Correspondent Describes Egypt Under the  
Bombings, by Thierry Desjardins, 10 pp.  
FRENCH, np, Le Figaro, Paris, 17 Feb 1970,  
p 5.  
JPRS 50095

Israeli General Recounts Seizure of Golan Heights,  
by Yosef Azez, 9 pp.  
HEBREW, per, Bamahaneh, Tel Aviv, 23 Dec 1969,  
pp 8-9.  
JPRS 50037

General Gavish Recalls Early Events in Sinai  
Occupation, by Binyamin Landau, 8 pp.  
HEBREW, per, Bamahaneh, Tel Aviv, 30 Dec 1969,  
pp 12-13.  
JPRS 49919

General Zeira Assigned New Post as IDF Attache,  
6 pp.  
HEBREW, per, Bamahaneh, Tel Aviv, 13 Jan 1970,  
pp 26-27.  
JPRS 49919

East-West Battle for Oil Cited as Root of  
Middle East Conflict, by Sadeq Barzegar, 5 pp.  
PERSIAN, per, Ferdowsi, Tehran, 9 Feb 1970,  
pp 10, 12.  
JPRS 49997

Middle East  
Sociological

Cairo Atomic Clock Will Regulate Mid-East Clocks,  
by 'Abbas Mabruk, 5 pp.  
ARABIC, np, Al-Ahram, Cairo, 18 Jan 1970, p 3.  
JPRS 49919

Juwait Shows Tremendous Progress in Education,  
5 pp.  
ARABIC, np, al-Ahram, Cairo, 21 Feb 1970, p 7.  
JPRS 50147

Syrian GDR College Graduates Interviewed, by  
Margarete Toulab, 6 pp.  
GERMAN, per, Horizont, East Berlin, No 7,  
Feb 1970, pp 3-4.  
JPRS 49997

New Legislation, Organization Reduces Greece's  
Crime Rate, 7 pp.  
GREEK, np, Eleftheros Kosmos, Athens, 18 Jan 1970,  
p 14.  
JPRS 40037

Sioris Reviews Progress in All Education  
Sectors, 7 pp.  
GREEK, np, Eleftheros Kosmos, Athens, 7 Feb  
1970, pp 1, 9.  
JPRS 50095

FAR EAST

Economic

Conditions of CPR Plastics Production Told,  
by Lu Yun, 9 pp.  
CHINESE, per, Chung-kung Yen-chiu, Taipei,  
No 12, Dec 1969, pp 82-97.  
JPRS 50091

National conference of Accounts and  
Tellers Held by the People's Bank of  
China and the Agriculture Bank of China,  
9 pp.  
CHINESE, per, Chung-kuo Chin-jung, no 3  
9 February 1966  
Selections from China Mainland Magazines  
no 678  
13 April 1970

Show Concern for the Motherland, Bear in Mind the World Affairs, and Handle Foreign Exchange and Insurance for the Revolutionary Cause, 5 pp.  
CHINESE, per, Chung-kuo Chin-jung, no 9  
9 May 1966  
Selections from China Mainland Magazines  
no. 678  
13 April 1970

Telephone Conference Jointly Held by the Ministry of Finance and the People's Bank of China, 5 pp.  
CHINESE, per, Chung-kuo Chin-jung, no 10  
24 May 1966  
Selections from China Mainland Magazines  
no 678  
13 April 1970

Work of National Bank of Cambodia Reviewed, 12 pp.  
FRENCH, per, Le Sangkum, Phnom Penh, Nov 1969,  
pp 47-62.  
JPRS 50046

Monetary System, Exchange Control and Free Zone, by Touch Kim, 11 pp.  
FRENCH, per, Le Sangkum, Phnom Penh, Dec 1969,  
pp 74-87.  
JPRS 50046

Statistical Compilation on the Japanese Tuna Fishing for 1958, 8 pp.  
JAPANESE, per, Katsuo to Maguro, No 73,  
25 Dec 1959.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 46  
On Loan

Attainment of Goals of Seven-Year Plan Urged, 8 pp.  
KOREAN, np, Minju Choson, P'yongyang,  
23 Jan 1970, p 1.  
JPRS 50191

Taan Work System for Economic Control Stressed, 11 pp.  
KOREAN, per, Minju Choson, P'yongyang,  
25 Jan 1970, pp 2-3.  
JPRS 50132

Bank's Role in National Household Stressed, by Pyon, Sung-u, 8 pp.  
KOREAN, np, Minju Choson, P'yongyang, 14 Feb 1970, p 2.  
JPRS 50206

Intensification of Financial Control Urged, by Yun-su Ch'oe, 9 pp.  
KOREAN, np, Nodong Sinmun, P'yongyang,  
13 Feb 1970, p 2.  
JPRS 50206

Classification of the Sectors of the National Economy, 12 pp.  
MONGOLIAN, per, Ediyū Dzasgiya Asuudal, Ulan Bator,  
No 2, 1969, pp 75-80.  
JPRS 50102

Results of Fulfillment of Mongolian 1969 Plan Announced, 9 pp.  
MONGOLIAN, np, Unen, Ulan Bator, 26 Jan 1969, p 1.  
JPRS 50102

Tsedenbal Elaborates on Politburo Announcement, by Yu. Tsedenbal, 19 pp.  
MONGOLIAN, np, Unen, Ulan Bator, 27 Jan 1970,  
pp 1, 2, 3.  
JPRS 50102

Goals of 1970 Economic, Cultural Plans of MRR Outlined, by B. Rinchinpeljee, 25 pp.  
MONGOLIAN, np, Unen, Ulan Bator, 28 Jan 1970,  
pp 2, 3.  
JPRS 50102

Budget Goals of MRR for 1970 Outlined, by Ts. Holom, 15 pp.  
MONGOLIAN, np, Unen, Ulan Bator, 29 Jan 1970,  
pp 2, 3.  
JPRS 50102

Deputy Gurbadam Predicts Continued Increase in Industrial Output for 1970, by Ts. Gurbadam, 9 pp.  
MONGOLIAN, np, Unen, Ulan Bator, 29 Jan 1970, p 3.  
JPRS 50102

Some Ideas About Management of Circulation and Distribution of Goods to Serve and Speed Production, to ensure people's living conditions, by To Duy, 11 pp.

VIETNAMESE, per, Bao Tan Viet Hoa, Hanoi, No 1, Jan 1970, pp 43-53, 54.  
JPRS 50083

Hanoi to whip up work output enthusiasm in Mountain Province, by Nguyen Ngoc Cu, 5 pp.

VIETNAMESE, np, Nhan Dan, Hanoi, 17 Nov 1969, p 2.  
JPRS 49952

Efforts to Improve Sagging Tobacco Yields Noted, by Nguyen Thao, 5 pp.

VIETNAMESE, np, Nhan Dan, Hanoi, 18 Feb 1970, p 2.  
JPRS 50087

Low Quality Products Still Plaguing North Vietnam Industry, by Vo Thanh Cong, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 20 Feb 1970, p 2.  
JPRS 50203

Directive Issued on Productive Labor Movement, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 24 Feb 1970, pp 1, 2.  
JPRS 50203

What Base is to be Used in Defining a Proper Structure for Local Industry?, 7 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 15-18.  
JPRS 50116

Several Experiences of Bui Village Cooperative in Educating and Organizing the Masses to Carry Out the Intensive Cultivation Program, by Nguyen The Hue, 10 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 26-31.  
JPRS 50116

La Xa Cooperative Educates and Organizes the Masses to Struggle to Achieve the Goal of 'One Worker per hectare of Cultivation', by Phan Van Linh, 9 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 31-35.  
JPRS 50116

Overseas Chinese Reminded of Need for Assimilation in NVN Society, 11 pp.

CHINESE, per, Bao Tan Viet Hoa, Hanoi, 31 Jan 1970, pp 2-3.  
JPRS 50087

Vietnam Lao Dong Party Called Benefactor, by Shi Yuan, 4 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 3 Feb 1970, p 2.  
JPRS 50129

Readers Exhorted to Follow Party to Victory, 7 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 3 Feb 1970, p 3.  
JPRS 50125

Overseas Chinese Schools Reminded of Failure to Meet Party Goals, by Hoang Xa, 9 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 9 Feb 1970, p 2.  
JPRS 50135

Overseas Chinese Urged to Make New Work Effort, 5 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 11 Feb 1970, p 1.  
JPRS 50111

Show Workers' Tradition of Unity and Struggle, by Huang Xao, 6 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 11 Feb 1970, p 2.  
JPRS 50111

20th Anniversary of Sino-Viet Friendship Association Celebrated, by Sun Kuang-fa, 5 pp.

CHINESE, np, Bao Tan Viet Hoa, Hanoi, 12 Feb 1970, pp 1, 4.  
JPRS 50111

Bring Politics to the Fore, Implement the Revolutionization of Hsien Branch Banks, 8 pp.

CHINESE, per, Chung-kuo Chin-jung, no 8 24 April 1966  
Selections from China Mainland Magazines no 678  
13 April 1970

Sunlight of Mao Tse-tung's Thought Shines  
on Thousands of Homes, 10 pp.  
CHINESE, per, Kuang-Ming Jih-pao,  
31 March 1970  
Survey of China Mainland Press  
No. 4634  
13 April 1970

Peking's Domestic, Foreign Policy Analyzed,  
by Heinrich Doehdelt, 5 pp.  
GERMAN, np, Handelsblatt, Dusseldorf,  
22 Jan 1970, p 2; 23-24 Jan 1970, p 2.  
JPRS 50012

Prisoner of NLF Tells of Six Months Captivity,  
by Horst Dieter Belger, 7 pp.  
GERMAN, np, Unsere Zeit, Essen, 5 Mar 1970,  
p 18.  
JPRS 50203

Revolutionary Upsurge for the Fifth Congress  
Urged, 16 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 10-17.  
JPRS 50084

Self-Identity is Marxist-Leninist Leadership  
Thought, 22 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 18-29.  
JPRS 50084

Revolutionary Study Style Must be Intensified,  
14 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 30-36.  
JPRS 50084

Learning Style of the Guerrillas Described,  
by Chon Mun-sop, 13 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 37-43.  
JPRS 50084

Importance of Cooperative Production Stressed,  
by P'yon Kwang-song, 14 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 44-50.  
JPRS 50084

Indigenous Struggle for South Koreans Stressed,  
by Cho Myong-il, 12 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 51-56.  
JPRS 50084

American Imperialism is Loomed, by  
Pak Yong-sok, 15 pp.  
KOREAN, per, Kulloja, P'yongyang, 5 Jan 1970,  
pp 57-64.  
JPRS 50084

'Considerable Flaws' Still Evident in County  
Work Reforms, by Yu Son-Hwa, 6 pp.  
KOREAN, np, Minju Choson, P'yongyang, 1 Feb  
1970, p 2.  
JPRS 50191

Glorious Attainment of Mineral Goals Urged,  
by Cho Ch'ang-dok, 8 pp.  
KOREAN, np, Nodong Sinmun, P'yongyang,  
25 Jan 1970, p 2.  
JPRS 50132

General Guidance and Individual Guidance to  
be Merged, by Yi In-do, Kim Chung-su, 16 pp.  
KOREAN, per, Nodong Sinmun, P'yongyang,  
3 Feb 1970, pp 2-3.  
JPRS 50132

The People's Army Marks its 22d Anniversary,  
by Chi Pyong-hak, 15 pp.  
KOREAN, np, Nodong Sinmun, P'yongyang,  
5 Feb 1970, pp 2-3.  
JPRS 50206

Imperialism Viewed as Dying Stages of  
Capitalism, by Choe Chil-Nam, 8 pp.  
KOREAN, per, Nodong Sinmun, P'yongyang,  
16 Feb 1970, pp 2-3.  
JPRS 50191

Model of the Work Method to be Emulated,  
by Yi To-byong, 16 pp.  
KOREAN, per, Nodong Sinmun, P'yongyang,  
18 Feb 1970, pp 2-3.  
JPRS 50206

An Account of Underground Activities Under  
French Rule, by Chu Van Tan, 9 pp.  
VIETNAMESE, np, Hanoi Moi, Hanoi, 21 Dec 1969,  
p 2.  
JPRS 50028

Fighter Party, Military Control Over Enterprises Urged, by Nguyen Van Tran, 7 pp.  
VIETNAMESE, np, Hanoi Moi, Hanoi, 21 Dec 1969, p 4.  
JPRS 50023

Speech Outlines Objectives, Responsibilities for 1970, by Nguyen Van Tran, 8 pp.  
VIETNAMESE, np, Hanoi Moi, Hanoi, 1 Jan 1970, pp 1, 2.  
JPRS 49968

President Ho Speaks About Party Development, 11 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 3-13.  
JPRS 50098

Strive to Score Achievements in 1970 in Order to Commemorate the Four Historic Days, 6 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 14-19.  
JPRS 50098

'Struggle to Successfully Implement the 1970 State Plan', 13 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 20-30.  
JPRS 50098

Under the Banner of President Ho's Military Thought, the Army and People of the Former Region 4 Resolved to Complete Every Task in an Outstanding Manner and to Help to Completely Defeat the U. S. Aggressors, by Le Quang Hoa, 18 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 31-42.  
JPRS 50098

President Ho with Good People and Good Things, by Phan Dien, 7 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 54-59.  
JPRS 50098

Ho's Eulogy: He Made Our Nation, Our People, and Our Land Famous!, by Thanh Ve, 15 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 60-73.  
JPRS 50098

Truong Chinh Delivers Speech on Party's 30th Anniversary, 28 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 7, 8 Jan 1969, pp 2, 5.  
JPRS 49971

Truong Chinh Tells Movie Industry to Follow Party Line, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 18 Nov 1969, pp 1, 2.  
JPRS 49952

Messages of Congratulation to Lao Dong Party, 15 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 4 Feb 1970, pp 2, 3.  
JPRS 50001

Enduring U.S. Bombs in Thanh Hoa Laid to Adherence to Party Policy, by Vo Nguyen Luong, 6 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 7 Jan 1970, p 2.  
JPRS 50062

Need for Strong Ideology Stressed in Nghe An Province, by Vo Thuc Dong, 5 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 8 Jan 1970, p 2.  
JPRS 50051

Official Hints at Total Mobilization to Attain 1970 Goals, by Che Viet Tan, 6 pp.  
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 8 Jan 1970, p 4.  
JPRS 50051

Activities of Various Institutions Reviewed, 20 pp.  
VIETNAMESE, per, Tin Tuc Hoat Dong Khoz Hoc, Hanoi, No 10, Oct 1969, pp 54-62.  
JPRS 50125

Intensify Education in Political Theory in Order to Increase the Determination to Struggle and Capacity for Work of Party Members and Cadres, 5 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 1-3.  
JPRS 50116

Some Ideas on the Study of Political Theory in Party Schools, by Nguyen Vinh, 14 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, Dec 1969, No 12, pp 4-11.  
JPRS 50116

Concerning the Program of Teaching Political Theory in the Basic Level Party Schools During the Next Few Years, by Nguyen Quang Huy, 6 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 12-14.  
JPRS 50116

Exchange of Experience About Propaganda Activities in Support of Agricultural Production, by Le Xuan Long, 14 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 19-26.  
JPRS 50116

New Development in the American People's Movement Against the War of Aggression in Vietnam, 5 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 38-41.  
JPRS 50116

Heavy Defeat of U.S. Neocolonialism in Latin America, 9 pp.  
VIETNAMESE, per, Tuyen Huan, Hanoi, No 12, Dec 1969, pp 41-46.  
JPRS 50116

Military

Sonar, Antisubmarine Warfare Explained, by Sheng Min, 5 pp.  
CHINESE, per, K'o-hsueh Hua-pao, Shanghai, Jun 1966, pp 230-231.  
JPRS 50091

War Aneurysms: Diagnosis and Treatments, by Hoang Mich Tho, Nguyen Quoc Binh, 20 pp.  
VIETNAMESE, rpt, 1967.  
ACSI J-7394  
ID 2204001570

Nixon Administration Faces Tough Military Problems, by Thanh Min, 11 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 30-39.  
JPRS 50095

Women Play Important Role in Armed Struggle, by Le Hien Mai, 8 pp.  
VIETNAMESE, per, Phu Nu Vietnam, Hanoi, 16 Dec 1969, pp 3-5, 26.  
JPRS 50092

Technical Revolution Plays Key Role in Education, by Doan Dinh Hoe, 14 pp.  
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Hanoi, No 10, Oct 1969, pp 9-16.  
JPRS 50087

LATIN AMERICA  
Economic

Agricultural Minister Reviews Credit Situation, 5 pp.  
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro, 22 Feb 1970, p 23.  
JPRS 50019

Rubens Costa Reviews Northeast Economy, 7 pp.  
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro, 1 Mar 1970, p 23.  
JPRS 50090

New Decree Extends Investment Incentives, 6 pp.  
PORTUGUESE, per, Jornal do Brasil, Rio de Janeiro, 4 Mar 1970, p 17.  
JPRS 50143

Economist Queried on Finance, Education, 6 pp.  
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro, 9 Mar 1970, p 35.  
JPRS 50133

Mass Media Aids Sugar Harvest, Economic Development, by Jose A. Benitez, 7 pp.  
SPANISH, np, Granma, Havana, 26 Feb 1970, p 2; 27 Feb 1970, p 2.  
JPRS 50090

Machado Ventura Analyzes Matanzas Sugar Harvest, by Juan Varela, 5 pp.  
SPANISH, np, Granma, Havana, 6 Mar 1970, p 3.  
JPRS 50090

Jose Figueres Speaks with Industry Leaders, by Jose Figueres, 14 pp.  
SPANISH, np, La Nacion, San Jose, 12 Feb 1970, pp 31, 32.  
JPRS 50019

1. *Chlorophyll a* and *Chlorophyll b* contents were determined by the method of Arar and Johnson (1977).

Run-down of Terrorism's Background, Tactics,  
Plans, 8 pp.  
PORTUGUESE, per, O Cruzeiro, Rio de Janeiro,  
10 Mar 1970, pp 108-111.  
JPRS 50179

Medici Favors Retaining Institutional Act,  
11 pp.  
PORTUGUESE, np, O Globo, Rio de Janeiro,  
28 Feb 1970, pp 12, 13.  
JPRS 50090

Medici Addresses Gaucho Governor's Banquet,  
6 pp.  
PORTUGUESE, np, O Globo, Rio de Janeiro,  
6 Mar 1970, p 8.  
JPRS 50179

MININT Agent Penetrates Havana Underworld,  
by Juan Carlos Fernandez. 6 pp.  
SPANISH, per, Bohemia, Havana, 20 Feb 1970,  
pp 36-39.  
JPRS 50148

General Vizux Sees Need for Strong Government,  
by Roberto Viaux, 8 pp.  
SPANISH, np, Clarín, Santiago, Chile, 10 Feb 1970,  
pp 3,4.  
JPRS 50019

Communist Unity Urged as Key to Revolution,  
by Argelia Laya, 10 pp.  
SPANISH, per, Deslinde, Caracas, 15-28 Feb 1970,  
P 3.  
JPRS 50159

Free Internal Debate Essential to Party, by  
Juvencio Pulgar, 5 pp.  
SPANISH, per, Deslinde, Caracas, 15-28 Feb 1970,  
p 10.  
JPRS 50159

Bias, Distortion Seen in Book by Petkoff, by  
Rafael Jose Cortes, 9 pp.  
SPANISH, per, Deslinde, Caracas, 15-28 Feb 1970,  
p 11.  
JPRS 50159

Sociopolitical Parallels, Bolivia and Argentina,  
by Mario Rolon Anaya, 13 pp.  
SRAMSH, np, El Diario, La Paz, 31 Jan 1970, p 2;  
1 Feb 1970, p 2; 2 Feb 1970, p 2; 3 Feb 1970, p 2;  
4 Feb 1970, p 2.  
JPRS 50019

Venezuela Seeks Border Solution with Guyana,  
7 pp.  
SPANISH, np, Elite, Caracas, 27 Feb 1970,  
pp 8, 9, 11.  
JPRS 50179

Salvador Allende Speaks of Renewed Optimism,  
8 pp.  
SPANISH, per, Ercilla, Santiago, Chile,  
4-10 Feb 1970, pp 8-10.  
JPRS 49949

Resolutions of Central American Student  
Congress, 8 pp.  
SPANISH, np, Libertad, San Jose, 14 Feb 1970,  
p 5.  
JPRS 50044

Juan Terra Explains Position on people's Front,  
by Oscar H. Bruschera, 6 pp.  
SPANISH, per, Marcha, Montevideo, 23 Jan 1970,  
pp 6, 22.  
JPRS 49927

Batalla: Law on Factions Harms Nation, Parties,  
by Luis Michelini, 5 pp.  
SPANISH, per, Marcha, Montevideo, 23 Jan 1970, p 7.  
JPRS 49927

Latin American View of Rockefeller's Report, by  
Claudio Veliz, 5 pp.  
SPANISH, per, Mensaje, Santiago, No 186, Jan-  
Feb 1970, pp 7-9.  
JPRS 49949

Church-State Conflict in Paraguay Described,  
39 pp.  
SPANISH, per, Mensaje, Santiago Chile, No 186,  
Jan-Feb 1970, pp 36-50.  
JPRS 49949

Secret Pact Between Ad and Copei, by  
Gonzalo Albornoz, 5 pp.  
SPANISH, per, Momento, Caracas, 1 Mar 1970,  
pp 22-25.  
JPRS 50159

New President Promises Peace and Progress, by  
Darilo Arias Madrigal, 5 pp.  
SPANISH, np, La Nacion, San Jose, 3 Mar 1970,  
pp 2, 4.  
JPRS 50143

Venezuela-Guyana Border Dispute Surveyed, by  
Eliam Cohen, 43 pp.  
SPANISH, np, El Nacional, Caracas, 30 Jan 1970,  
p B-16; 31 Jan 1970, p D-2; 1 Feb 1970,  
p D-2; 2 Feb 1970, p C-10, 3 Feb 1970, p L-14.  
JPRS 50114

'Freedom of Press' Law Meets First Court  
Test, 7 pp.  
SPANISH, per, Oiga, Lima, 23 Jan 1970,  
pp 12-14.  
JPRS 49950

Helder Camara Reviews Latin American Reality,  
by Helder Camara, 7 pp.  
SPANISH, np, Oiga, Lima, 23 Jan 1970, pp 21, 29,  
30.  
JPRS 49949

Minister of Fishing Discusses Governmental  
Plans, 6 pp.  
SPANISH, per, Oiga, Lima, 13 Feb 1970,  
pp 12-13.  
JPRS 50090

Ulloa States Peru is Moving Toward Chaos,  
6 pp.  
SPANISH, np, La Prensa, Buenos Aires,  
7 Mar 1970, p 16.  
JPRS 50179

Candidate Discusses Guatemalan Situation,  
5 pp.  
SPANISH, np, Francia Libre, Guatemala City,  
19 Feb 1970, pp 6, 9.  
JPRS 50133

Platform of Presidential Candidate Lucas  
Caballeros, 7 pp.  
SPANISH, np, Francia Libre, Guatemala City, 24 Feb  
1970, pp 17, 18.  
JPRS 50114

President Asks for Armed Forces Support of  
Alfredo Ovando Candia, 3 pp.  
SPANISH, np, Presencia, La Paz, 21 Feb 1970,  
pp 1, 6, 10, 12.  
JPRS 50143

Popular Unity Seen as Faulty Leftist Vehicle,  
2 pp.  
SPANISH, per, Punto Final, Santiago, 3 Feb  
1970, pp 2-3.  
JPRS 50061



Latin America  
Political Council

Effectiveness of Leftist Reformation Questioned,  
by Manuel Cardenas Lora, 11 pp.  
SPANISH, per, Punto Final, Santiago, Chile,  
1970, pp 10-11.  
JPRS 50061

Chilean Plan Targets Left Movement Efforts,  
by Flavio Humbert, 11 pp.  
SPANISH, per, Punto Final, Santiago, Chile,  
1970, pp 24, 25.  
JPRS 50061

Government Accused of Repressive Acts, 7 pp.  
SPANISH, per, Punto Final, Santiago, Chile, 17 Feb  
1970, pp 4-7.  
JPRS 50061

Peruvian Liberation Army Defends Execution,  
11 pp.  
SPANISH, per, Punto Final, Santiago, Chile, 17 Feb  
1970, pp 10-11.  
JPRS 50061

Chilean Readiness for Revolution Discussed, by  
A.C.B., 10 pp.  
SPANISH, per, Punto Final, Santiago, Chile, 3 Mar  
1970, pp 2-5.  
JPRS 50148

Militant Students Victims of Police Methods, by  
Matricio Garcia, 5 pp.  
SPANISH, per, Punto Final, Santiago, Chile, 3 Mar  
1970, pp 6-7.  
JPRS 50148

Student Leader Tells About Armed Guerrillas, 5 pp.  
SPANISH, per, Punto Final, Santiago Chile, 3 Mar  
1970, pp 12-13.  
JPRS 50148

Official Interviewed on Campaign Role of Movement,  
by J.C.B., 6 pp.  
SPANISH, per, Punto Final, Santiago, Chile, 3 Mar  
1970, pp 28-29.  
JPRS 50148

President-Elect Outlines Government Plans, 9 pp.  
SPANISH, np, La Republica, San Jose, 7 Feb 1970,  
pp 1, 5, 6.  
JPRS 50019

Latin America  
Political Council

Arguelat Denounces CIA in the Chevara Affair,  
by Luis Suarez, 6 pp.  
SPANISH, np, Diagnostico, Mexico City, 6 Feb 1970,  
pp 42, 43, 70.  
JPRS 50114

Ramirez Answers Alessandri in Radio Interview,  
11 pp.  
SPANISH, per, La Tercera, Santiago, Chile, 17 Feb  
1970, pp 4-9.  
JPRS 50004

Lopez Michelsen Urges Coalition for Peace, 11 pp.  
SPANISH, np, El Tiempo, Bogota, 6 Feb 1970, p 6.  
JPRS 49927

Peruvian Government Moves Against Press  
Critics, 5 pp.  
SPANISH, np, Ultima Hora, Santiago, Chile, 1 Feb  
1970, p 6.  
JPRS 50049

Election Activity of Leftist Fronts Described,  
6 pp.  
SPANISH, np, Voz Proletaria, Bogota, 22 Jan  
1970, p 5.  
JPRS 50004

#### Military

Role of Army Explained by General Lamela,  
5 pp.  
SPANISH, np, La Nacion, Buenos Aires,  
24 Feb 1970, pp 1, 5.  
JPRS 50049

#### Sociological

University Presidents Discuss University Reform,  
by Angel Ciro Guerrero, 14 pp.  
SPANISH, per, Bohemia, Caracas, 6 Feb 1970,  
pp 27-31.  
JPRS 50004

Latin America  
Sociological Content

New Press Statute Judged Unacceptable, 1 pp.  
SPANISH, per, Caracas, Lima, 30 Jan-12 Feb  
1970, p 11.  
JPRS 50046

Education Ministry Reveals Certification Plan,  
11 pp.  
SPANISH, np, Granma, Havana, 16 Feb 1970, p 2.  
JPRS 50090

Chilean Episcopal Statement Explained Further,  
by J. F., 5 pp.  
SPANISH, per, Mensaje, Santiago, Jan-Feb 1970,  
pp 30-31.  
JPRS 49950

Jurists Review Meaning of Penal Reform, 17 pp.  
SPANISH, np, El Tiempo, Bogota, 8 Feb 1970, pp 21,  
27.  
JPRS 49949

Suspended Rebel Priest Uses Pulpit as Rulpit,  
by German Castro Caycedo, 5 pp.  
SPANISH, np, El Tiempo, Bogota, 24 Feb 1970,  
p 2.  
JPRS 50114

Problems of National University Discussed,  
17 pp.  
SPANISH, np, El Tiempo, Bogota, 2 Mar 1970,  
pp 6, 7.  
JPRS 50133

#### NORTH AMERICA Economic

Industry, Manufacturing and Trade in the  
United States of North America, by  
C.L. Fleischmann, 616 pp.  
GERMAN, mono, Erwerbszweige, Fabrikwesen  
und Handel der Vereinigten Staaten von  
Nordamerika, 1852.  
\*CFSTI TT 70-50090

SCIENTIFIC  
Aeronautics

Emergence of a Shock Wave into an Extended Envelope of a Star and Supernova Explosions, by Ye. K. Grasberg, D. K. Nadezhin, 29 pp. RUSSIAN, rpt, AN SSSR Ordena Lenina Inst Prikladnoy Matematiki, Preprint No 21. AEC/UCRL-Tr-10439-70

Outstanding Flight of ZND-7, by Ye. Kulakovskov. RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 6-7. \*NASA TT F-12,949

Chapter XV. Molding of Circulation Flows, by G. A. Ryazanov. 39 pp. RUSSIAN, bk, Elektricheskoye Modelirovaniye S Primeneniyem Vkhrevykh Poley, 1969, pp 295-320 AIR/FTD/MT-24-331-69

Testing Aircraft Instruments, by P. I. Bulovskiy, L. M. Idel'son. 502 pp. RUSSIAN, Book, Ispytaniya Aviatsionnykh Priborov, 1966, pp 1-352 AIR/FTD-HT-23-163-68

Determination of the Optimum States of Aircraft, by A. Ya. Vasilyev, et al. RUSSIAN, per, Issledovaniya po Dinamike Poleta, No 2, 1969, pp 61-67. \*NASA TT F-12,942

Determination of Aircraft and Engine Parameters Which Ensure a Maximum Theoretical Range for a Given Cruising Speed, by I. F. Florov, O. K. Lugov. 11 pp. RUSSIAN, per, Izv. VUZ. Aviats. Tekhn. Vol 11, No 3, 1968, pp 16-22. \*NASA TT F-12,732

Accident-Free Flight Training Discussed, by B. Yermolin, 5 pp. RUSSIAN, np, Krasnaya Zvezda, Moscow, 16 Jan 1970, p 2. JPRS 49922

Theoretical Bases of Jumping, by Kravtsov, I. 1- pp. RUSSIAN, per, Kryliya Rodiny No 1, 1969, pp 1-6 AIR/FTD/MT-24-311-69

Control Systems for Single-Rotor Helicopters, by I. S. Dmitriyev, et al. 219 pp. RUSSIAN, bk, Sistemy Upravleniya Odnovintovymi Vertoletov, 1969, \*NASA TT F 636

Supersonic Airplane Simulation Analysis, by N. I. Mityanov, 6 pp. RUSSIAN, per, USA: Economics, Politics, Ideology, Moscow, No 1, 1970, pp 109-112. JPRS 49934

Outletting Tests, by Irénée Chapin. 1 pp. FRENCH, rpt, Essais de Traitement. \*NASA TT F-12,776

Representation of a Lifting Line in an Arbitrary Motion by a Line of Acceleration Doublets, by R. Bat. FRENCH, per, La Recherche Aéronautique, No 133, Nov.-Dec. 1969, pp 45-51. \*NASA TT F-12,952

The Development of an Integrated Flight Guidance and Control System for Modern High-performance Aircraft, by H.-G. Schumann, et al. GERMANY, rpt, Deutsche Gesellschaft für Luft- und Raumfahrt, Jahrestagung, Bremen, West Germany, Paper 41, Sept 22-24, 1969, 25 pp. \*NASA TT F-12-752

Gust Effects on the Dynamics of Aircraft During Landing Approach, by P. Hanel, et al. GERMANY, rpt, Deutsche Gesellschaft für Luft- und Raumfahrt, Jahrestagung, Bremen, West Germany, Paper 52, Sept 22-24, 1969, 26 pp. \*NASA TT F-12-751

Description and Effect of Unsteady Gust Derivatives of the Longitudinal Motion of an Aircraft, by G. Schanzer. GERMANY, rpt, Deutsche Gesellschaft für Luft- und Raumfahrt, Jahrestagung, Bremen, West Germany, Paper 54, 22-24 Sept 1969, 42 pp. \*NASA TT F-12,753

Twin-Shaft and Ducted-Fan Aircraft Engines by S. Szczecinski, 14 pp. POLISH, per, Biuletyn Informacyjny Instytutu Lotnictwa No 4, pp 32-35 AIR/FTD/HT-23-508-69

Present State and Perspectives for Further Development of Aircraft Turbine by W. Kordzinski 13 pp. POLISH, per, Technika Lotnicza i Astronautyczna No 6, 1968, pp 1-4, AIR/FTD/HT-23-519-69

Programs for Automatically Controlling the Pre-set Operation of Aircraft Turbine Engines, by T. Gajewski. 20 pp. POLISH, per, Wojskowy Przegląd Lotniczy, 1969 pp 41-54. AIR/FTD/HT-23-507-69

Source:  
Agriculture

Azerbaijani Production Statistics Quoted,  
by G. Aliyev, 7 pp.  
RUSSIAN, per, Aritator, Moscow, Feb 1970, pp 19-21.  
JPRS 50050

Kolkhoz Workers Improve Production, Living, 8 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,  
No 52, Dec 1969, pp 18-19.  
JPRS 44923

Income Distribution in Kolkhozes Discussed,  
by L. Zaytsev, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,  
No 6, Feb 1970, p 18.  
JPRS 50079

Intra-Brigade Farm Labor Organization Described,  
by L. Smal'ko, 10 pp.  
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev,  
No 9, pp 52-57.  
JPRS 50108

Transport Problems in Agriculture Assessed, by  
V. Kotelyanets, 7 pp.  
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev,  
No 1, 1970, pp 72-75.  
JPRS 50100

Increase in Yield of Rodder Crops Urged, by  
A. Smbatyan, 6 pp.  
RUSSIAN, np, Kommunist, Yerevan, 27 Feb 1970,  
p 2.  
JPRS 50115

Estonian Agriculture Minister Interviewed on  
Kolkhoz Congress, 7 pp.  
RUSSIAN, per, Kommunist Estonii, Tallin,  
No 1, 1970, pp 23-25.  
JPRS 50000

Rodder Situation in Tadzhik SSR Criticized, by  
S. Aricolin, 5 pp.  
RUSSIAN, np, Kommunist Tadzhikistana, Dushanbe,  
12 Feb 1970, p 3.  
JPRS 50115

Agriculture Threatened by Spare Parts Shortage,  
by A. Kotschy, 2 pp.  
RUSSIAN, np, Pravda, Moscow, 24 Jan 1970, p 2.  
JPRS 50100

Source:  
Agriculture

Melassigenic Coefficients of Individual  
Nonsugars, by N. P. Silina, 10 pp.  
RUSSIAN, per, Sakharnaya Promyshlennost',  
vol. 40, no. 9, 1966, pp. 15-18.  
CFSTI TT 69-53024

Forced Ventilation of Sugar Beet Piles at  
factories of Central Black Earth Region  
and Kuban, by R. G. Podvigin,  
M. M. Elagin, 10 pp.  
RUSSIAN, per, Sakharnaya Promyshlennost',  
vol. 40, no 11, 1966, pp. 46-50.  
CFSTI TT 69-53024

Use of New Methods for Artificial Ventilation  
While Storing Sugar Beets in Piles, by  
M. Z. Khelemskiy, et al., 9 pp.  
RUSSIAN, per, Sakharnaya Promyshlennost', vol 41  
no 2, 1967, pp. 36-41.  
CFSTI TT 69-53024

Experiments in Forced Ventilation and Artificial  
Irrigation of Beet Root Piles, by A.I. Prudnikov,  
N. M. Ignatov, 6 pp.  
RUSSIAN, per, Sakharnaya Promyshlennost', vol 41.  
no. 6, 1967, pp. 44-46.  
CFSTI TT 69-53024

Industrial-Type Poultry Farming Recommended, by  
A. Sennikov, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', Moscow, 30 Jan 1970,  
p 2.  
JPRS 50024

Methods to Increase Pork Production Discussed,  
by V. Kozlovskiy, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', Moscow, 3 Feb 1970,  
p 2.  
JPRS 50024

Agrarian-Industrial Combines Called Step Forward,  
by A. Negru-Bode, 5 pp.  
RUSSIAN, np, Sel'skaya Zhizn', Moscow, 11 Feb 1970,  
p 2.  
JPRS 50100

Physiological and Technological Proper-  
ties of Polyploid Varieties of Sugar  
Beet, by I. F. Buzanov, et al. 22 pp.  
RUSSIAN, per, Sel'skokhozyaistvennaya  
Biologiya, vol. lno. 5, 1966, pp. 654-665.  
CFSTI TT 69-53024

Kolkhoz Problems Discussed at Estonian Meeting,  
6 pp.  
RUSSIAN, np, Sovetskaya Estoniya, Tallin, 30 Jan  
1970, pp 1, 3.  
JPRS 50050

Status of Lithuanian Agriculture Analyzed,  
5 pp.  
RUSSIAN, np, Sovetskaya Litva, Vil'nyus,  
3 Feb 1970, p 1.  
JPRS 49983

New Link System in Agriculture Encouraged, by  
A. Ionomarev, 6 pp.  
RUSSIAN, np, Sovetskaya Rossiya, Moscow, 12 Feb  
1970, p 2.  
JPRS 50050

Kolkhoz Experience with Link System Discussed,  
by A. Pavlukhin, 5 pp.  
RUSSIAN, np, Sovetskaya Rossiya, Moscow, 19 Feb  
1970, p 2.  
JPRS 50050

Siberian Rivers to be Rerouted to Central Asia,  
by Yu. Dzhefarov, V. Karpenko, 9 pp.  
RUSSIAN, np, Trud, Moscow, 11 Feb 1970, p 4.  
JPRS 50079

Role of Consumers' Cooperatives Discussed, by  
A. Belkin, 6 pp.  
RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh  
Produktov, Moscow, No 12, 1969, pp 24-25.  
JPRS 50024

Agricultural 1970 Procurement Plan Reviewed,  
6 pp.  
RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh  
Produktov, Moscow, No 1, 1970, pp 4-5.  
JPRS 50115

Milk Price Calculation Procedure Described,  
by I. Popova, 6 pp.  
RUSSIAN, per, Zakupki Sel'skokhozyaystvennykh  
Produktov, Moscow, No 1, 1970, pp 29-30.  
JPRS 50115

Norms of Labor in Animal Husbandry Need Improve-  
ment, by M. A. Nikitin, 6 pp.  
RUSSIAN, per, Zhivotnovodstvo, Moscow, No 1, Jan  
1970, pp 14-16.  
JPRS 49946

New Virgin-lands Beef Cattle Breed Being Developed  
in Kazakhstan, by N. F. Rostovtsev, 9 pp.  
RUSSIAN, per, Zhivotnovodstvo, Moscow, No 1, Jan  
1970, pp 23-27.  
JPRS 49946

Year-Round Beef Production Through Intensive  
Fattening, by S. Ya. Dudin, G. S. Azarov, 8 pp.  
RUSSIAN, per, Zhivotnovodstvo, Moscow, No 1, Jan  
1970, pp 27-31.  
JPRS 49946

Sousse Region Needs Rain and Agricultural  
Credit, (Africa), by Mohamed Bouhard, 5 pp.  
FRENCH, np, L'Action, Tunis, 21 Feb 1970, p 2.  
JPRS 50093

Agriculture, Cattle, Fishing Statistical  
Data, (Inter-Africa), 13 pp.  
FRENCH, per, Bulletin de l'Afrique Noire,  
Paris, 7 Jan 1970, pp 11719-11728.  
JPRS 50196

1968 Livestock and Fisheries Report Issued,  
(Gabon), 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire,  
Paris, 11 Feb 1970, pp 11824-11826.  
JPRS 50151

East Cameroon Food Crop Statistics Given,  
(Cameroon), 6 pp.  
FRENCH, per, Bulletin de l'Afrique Noire,  
Paris, 4 Mar 1970, pp 11884-11886.  
JPRS 50202

Grueneberg Previews 1970 Agricultural Targets,  
by Gerhard Grueneberg, 8 pp.  
GERMAN, per, Neuer Weg, East Berlin, No 4,  
Feb 1970, pp 145-150.  
JPRS 50060

Agricultural Production in 1969 Evaluated,  
by Mieczyslaw Solecki, 14 pp.  
POLISH, per, Nowe Rolnictwo, Warsaw,  
16-31 Dec 1969, pp 1-4.  
JPRS 50065

Plant, Soil and Agricultural Soil Maps,  
by B. Swietochowski, 13 pp.  
POLISH, per, Roczniki Glebnawcze, vol XV  
1965, pp. 85-97.  
\*CPSTI TT 70-55064

Analitical Work Conducted for Soil Agricultural Utilization Maps, (Scale in cm, 1:5000 and other) and Its Adjustment to the Different Scientific Investigation, by J. Siuta, 9 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 119-127.  
\*CFSTI TT 70-55064

A Contribution to the Studies on Deeping of Tillage Light Mada Soils, by M. Romska, 4 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 387-390.  
\*CFSTI TT 70-55064

Effect of a Single Deep Ploughing on Micromorphology of a Light Mada Soil, by B. Jablonski, 4 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 449-452.  
\*CFSTI TT 70-55064

Some Aspects of Soil Survey on the Irrigation-Drainage Project areas, by J. Marcinek, 4 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 455-458.  
\*CFSTI TT 70-55064

Agricultural soil complexes of Kozienice District on Map, by Z. Oczos, 4 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 465-468.  
\*CFSTI TT 70-55064

Greater Use of Power in Agriculture Urged, by A. Sar, 5 pp.  
POLISH, mp, Zielony Sztandar, Warsaw, 1 Feb 1970, pp 1, 2.  
JPRS 50082

New Moves to Increase Meat, Milk Output, by Ioan Moldovan, 5 pp.  
ROMANIAN, per, Agricultura, Bucharest, 12 Feb 1970, pp 1, 7.  
JPRS 50107

Agricultural Enterprises' Efficiency Scrutinized, by Ion Tesu, 5 pp.  
ROMANIAN, mp, Agricultura, Bucharest, 26 Feb 1970, pp 1, 3.  
JPRS 50201

results, prospects of Agricultural Mechanization, by Petru Moldovan, 6 pp.  
ROMANIAN, per, Mecanizarea si electrificarea Agriculturii, Bucharest, Jan 1970, pp 3-7.  
JPRS 49941

Intercooperative Stock Farms Being Organized, by Stelian Dinescu, 6 pp.  
ROMANIAN, per, Revista de zootehnie si medicina veterinara, Bucharest, Feb 1970, pp 5-9.  
JPRS 50082

Agricultural Credit and Marketing Reviewed, by Angel Antonio Bruzual, 6 pp.  
SPANISH, per, Elite, Caracas, 27 Feb 1970, pp 52-54.  
JPRS 50179

1. National Parks and Tourists.
2. Converted Timber.
3. A View on Thailand.
4. Forest Soils.

THAI, per, The Vansarn, Vol 27, No 2, Apr-Jun 1969, pp 133-143, 157-167, 169-180, 181-187.  
\*ACSI J-8239  
ID 2204006570

1. Estimates of Charcoal.
2. Forest Soils.
3. Resin Production.

THAI, per, The Vansarn, Vol 27, No 3, Jul-Sept 1969, pp 219-223, 253-261, 277-291.  
\*ACSI J-8242  
ID 2204006670

1. Forest Soils.
2. National Reserved Forests Deteriorated From Illegal Land Ownership.

THAI, per, The Vansarn, Vol 27, No 4, Oct-Dec 1969, pp 329-336, 371-376.  
\*ACSI J-8243  
ID 2204006770

Stock Raising in the People's Republic of Cuba, by Le Tuy Trinh, 8 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi, No 1, Jan 1970, pp 74-79.  
JPRS 50098

Agricultural Regionalization Methodology Discussed, by Nguyen Huy, 43 pp.  
VIETNAMESE, per, Nghien Cuu Kinh Te, Hanoi, No 51, Oct 1969, pp 58-78.  
JPRS 50203

Spring Planting Fulfilled by Total Mobilization  
of Labor Force, by Anh Trang, Lao Viet, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 20 Jan 1970, p 2.  
JPRS 50032

Development of Afforestation Movement Urged,  
by P. V., 1 p.  
VIETNAMESE, np, Nhan Dan, Hanoi, 27 Jan 1970,  
p 1.  
JPRS 50031

Let's Teachers Cited to Remind Citizens of  
Value of Afforestation, by Nguyen Tao, 7 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 28 Jan 1970,  
p 1.  
JPRS 50031

Measures Taken to Remedy Low Peanut Yields in  
Lao Province, by Nguyen Ngan, 6 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 19 Feb 1970, p 2.  
JPRS 50135

Officials Want to Lift Low Priority Stigma  
on Cultivation of Rush, by Anh Trang, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 20 Feb 1970,  
p 2.  
JPRS 50203

Ngha An Province Scores Success in Spring Rice,  
by Le Giang, 7 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 24 Feb 1970,  
p 2.  
JPRS 50203

#### *Astrophysics & Astrophysicists*

The Use of Television in the Search for  
Supernovae, by A. M. Abramenko, V. V. Prokofyev,  
1 p.  
RUSSIAN, per, Izvestiya Kazanskoy Astrofizicheskoy  
Observatorii, Vol 38, 1967, pp 252-256  
NASA TT F-12-904

Course in Theoretical Astrophysics, by  
V. V. Sokolov, 504 pp.  
RUSSIAN, np, Kurs Teoreticheskoy Astrofiziki,  
1967.  
NASA TT-F-531

Study of the Polarization Properties of the  
Surfaces of Jupiter and Saturn.  
RUSSIAN, np, Ob Rasseyvani Poliarizatsionnogo  
Sveta Poverkhnosti Jupitera i Saturna,  
pp 36-41.  
NASA TT F-12,904

Spectrophotometric Investigation of the  
Intensity of Scattered Light, by A. I. Ivanov,  
13 pp.  
RUSSIAN, np, Trudy Akademiya Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967, pp 113-121.  
NASA TT F-12-904

Experience Gained from Photometric Studies of  
the Atmospheric Activity of Jupiter in 1964-  
1965, by A. M. Aksenov, et al.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967,  
pp 7-21.  
NASA TT F-12,901

Basic Results of an Analysis of Observations of  
the Surface of Jupiter from 1962 to 1965, by  
J. K. Vekhsyatskiy.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967,  
pp 22-29.  
NASA TT F-12,902

Results of Photographic Photometry of Jupiter,  
by Yu. V. Aleksandrov.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967, pp 36-37.  
NASA TT F-12,903

Certain Properties of the Atmosphere of Jupiter  
According to Spectrophotometric Observations,  
by L. S. Galkin.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967,  
pp 42-46.  
NASA TT F-12,905

Ultraviolet Absorption in the Spectra of Jupiter  
by V. F. Kartashov.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967,  
pp 47-50.  
NASA TT F-12,906

Comparison of the Absorption Distribution in  
the CH<sub>4</sub> 6190-Å Band on the Jupiter and Saturn  
Disks, by V. G. Teifel'.  
RUSSIAN, per, Trudy Akademii Nauk Kazanskoy  
SSR, Astrofizicheskoy Institut, Vol 9, 1967,  
pp 59-62.  
NASA TT F-12,909

Distribution of Molecular Absorption of Methane  
over the Jupiter Disk in the Near Infrared  
(0.7 to 1.0  $\mu$ ), by V. G. Teifel'

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 61-82.

\*NASA TT F 12,910

Continuous Spectra of the Satellites of  
Jupiter, by N. V. Privoyeva.

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 94-96

\*NASA TT F-12,912

Influence of Atmospheric Dispersion on the  
Results of Spectral and Photographic Obser-  
vations of Planets, by V. G. Teifel'

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 98-103

\*NASA TT F 12,914

Spectrophotometric Star References in Planetary  
Observations, by N. D. Kalinenkov.

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 104-105.

\*NASA TT F 12,915

Evolution and Physical Properties of the Earth  
and Planets as a Consequence of the Special  
Features of Their Origin, by V. G. Fesenkov.

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 109-120

\*NASA TT F 12,916

Age of the Earth, of Heavy Elements, and of  
Meteorites, by V. I. Baranov.

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 121-126.

\*NASA TT F 12,917

Cosmogenetic Isotopes and the Cosmic Age of  
Meteorites, by A. K. Iavrukhina.

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 127-138.

\*NASA TT F 12,918

Some Special Features of the Structure and the  
Origin of Meteorites, by A. A. Yavnel'

RUSSIAN, per, Trudy Akademii Nauk Kazakhskoi  
SSR, Astrofizicheskii Institut, Vol 9, 1967,  
pp 139-150.

\*NASA TT F 12,919

Observations of the Satellites of Mars at Washington,  
Pulkovo, and Lick Observatory, by H. Struve, 39 pp.  
GERMAN, rpt, Proceedings of the Physics and  
Mathematics Society.

NAV/NIC/Tr-3004-70

Position of the Axis of Mars, and Constants in the  
Mars System, by H. Struve, 21 pp.

GERMAN, rpt, Proceedings of the Physics and  
Mathematics Society, Nov 30, 1911, pp 1056-1073.  
NAV/NIC/Tr-3003-70

Hypothetical Trans-Neptunian Planets, by

H. H. Kritzinger, 10 pp.

GERMAN, per, Die Sterne, Vol 39, No 1/2, 1963,  
pp 6-10.

AEC/UCRL-Tr-10431-69

#### *Atmospheric Sciences*

Interferometry With the Propagation Difference  
up to 500 m Through the Turbulent Atmosphere,  
by V. V. Pckasov, et al.

RUSSIAN, per, Izvestiya VUZ, Fizika, No 8, 1969,  
pp 139-141.

\*NASA TT F 12,900

A Radio Astronomical Method for Measuring the Value  
of Radio-wave Absorption in the Ionosphere, by  
B. V. Belikovich.

RUSSIAN, per, IVUZ Radiofizika, Vol 12, No 10,  
1969, pp 1439-1454.

\*NASA TT F-12,897

The Operation of Apparatus for Determining  
the Location of Nearby Thunderstorm Foci,

by T. V. Lobodin, P. S. Lydzar. 9 pp.

RUSSIAN, per, Trudy Leningrad. Glavnaya  
Geofizicheskaya Observatoriya, No 225, 1968,  
pp 30-34.

AIR/FTD/MT-24-281-69

Dispersion Patterns of Aerosol Particles in  
a Free Atmosphere, by G. M. Petrova,  
A. N. Miroshkina. 45 pp.

RUSSIAN, per, Trudy Leningrad. Institut  
Prikladnoy Geofiziki, No 4, 1967, pp 5-40.  
AIR/FTD/MT-24-283-69



characteristics of the Meteorological Regime in the Lower 300 m Layer Determined From Two Years of Observations on a High, by G. B. Mashkova, 11 pp. RUSSIAN, rpt, Leningrad. Institut Prikladnoy Geofiziki. Trudy, No 10, 1967, pp 3-9

AIR/FTD/HT-23-318-69

Accounting For Wind Turbulence Characteristics in the Calculation of Dynamic Loads on High Structures, by Z. I. Volkovitskaya, V.N. Ivanov, 11 pp. RUSSIAN, rpt, Leningrad. Institut Prikladnoy Geofiziki. Trudy, No 10, 1967, pp 10-17

AIR/FTD-HT-23-318-69

Wind Profiles When Clouds Are Lower Than 300 m, by G. B. Mashkova, 7 pp. RUSSIAN, rpt, Leningrad. Institut Prikladnoy Geofiziki. Trudy, No 10, 1967, pp 39-43

AIR/FTD-HT-23-318-69

Conversion of Signals From a Restrained Anemometer, by V. Yu. Torochkov, 5 pp. RUSSIAN, par, Trudy Nauchno - Issledovatel'skogo Instituta Gidrometeorologicheskogo Priborostroyeniya No 17, 1967, pp 11-13. ACSI J-8000 FSTC/HT-23-696-70

Joint Evaluation of Satellite Signals for Determination of the Electron Content of the Ionosphere for Two Observation Stations, by A. Ebel. GERMAN, per, Kleinheubacher Berichte, Vol 13, 1969, pp 29-36. \*Dept of Navy APL/JHU J-1477

VLF Propagation Over Long Distances as a Means of Investigating The Lower Ionosphere, by K. Rinnert. GERMAN, per, Kleinheubacher Berichte, Vol 13, 1969, pp 45-52. Dept of Navy APL/JHU T-2397

Correlation Between Solar Activity and Lower Ionosphere, by H. Schwentek. GERMAN, per, Kleinheubacher Berichte, Vol 13, 1969, pp 121-125. \*Dept of Navy APL/JHU J-1479

Significance of the Ionosphere From a Meteorological Viewpoint, by W. Laun.

GERMAN, per, Kleinheubacher Berichte, Vol 13, 1969, pp 135-139.

\*Dept of Navy APL/JHU J-1480

Weather Science - Weather Research - History of Their Problems and Recognition in Documents During Three Thousand Years by Karl Schneider-Carius, 438 pp. GERMAN, bk, Wetterkunde - Wetterforschung-Geschichte ihrer Probleme und Erkenntnisse in Dokumenten aus drei Jahrtausenden, 1955 \*CPSTI TT 70-57150

#### *Behavioral & Social Sciences*

An Algorithm of Successive Recognition of Images, by Dolyatovsiy, V. A. ; Ponomareva, I. D. 6 pp. RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Priborostroyeniye, Vol 11, No 6, 1968, pp 59-64. AIR/FTD/MT-24-399-69

Mechanisms of Memory, by Ye. N. Sokolov. 176 pp. RUSSIAN, bk, Mekhanizmy Pamyati, 1969. CONSULTANTS BUREAU/PLENUM PRESS

Accomplished At The Moscow Power Engineering Institute, by D. Anatol'yev. 14 pp. RUSSIAN, rpt, Nauka i Zhizn', No 12, 1968, pp 57-62. AIR/FTD-HT-23-294-69

Mean Sound Spectra of Standard Colloquial Chinese Vowels, by Huan-chang Hsu. 22 pp. CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 1, 1965, pp 1-6. AIR/FTD-HT-23-1138-68

Pitch Indicator and Pitch Characteristics of Standard Colloquial Chinese Tones, by Mao-ts'an Lin, 22 pp. CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 1, 1965, pp 7-14. AIR/FTD-HT-23-1138-68

Sound quality of a large Auditorium,  
by Hao Shen, 7 pp.  
CHINESE, rpt. Sheng Hsueh Hsueh Pao,  
Vol 2, No 1, 1965, pp 41-46.  
AIR/ETD-HT 25 1138-68

The All-China Scientific Conference  
on Application of Ultrasonics, by  
Kuo-pao Shih, Chi-hsuan Ch'a 6 pp.  
CHINESE, rpt. Sheng Hsueh Hsueh Pao,  
Vol 2, No 1, 1965, pp 47  
AIR/ETD/HT-23-1138-68

*Biological & Medical Sciences*

On the Influence of Industrial Noises on the Blood  
Pressure of Workers in Machine Shops, by  
N. N. Pokrovskiy, 5 pp.  
RUSSIAN, SOURCE UNKNOWN, 1964.  
ACSI J-7886  
ID 2204000470

RSFSR Health Official Discusses New Draft  
Law, by S. Chikin, 5 pp.  
RUSSIAN, per, Agitator, Moscow, No 24, 1969,  
pp 27-29.  
JPRS 49996

The Influence of Ferrocene on Hemopoiesis  
in Rats (Preliminary Findings), by  
S. A. Papoyan, P. V. Breyvis. 5 pp.  
RUSSIAN, rpt. AN ARM SSR. Institut Rent-  
genologii i Onkologii, Voprosy Rentgenologii  
i Onkologii, Vol 7, 1963, pp 477-482.  
AIR/ET/24-273-67

Morphology and Histochemistry of Nervous Apparatus  
of the Lung after Complete Section of its  
Extraorgan Nerve Connections, by V. I. Didenko.  
RUSSIAN, per, Arkh Anat, Vol 51, 1966, pp 60-68.  
\*NMS/1469

Pathological Anatomic Analysis of the Results of  
experimental reimplantation of the lung, by  
I. K. Yesipova.  
RUSSIAN, per, Arkh Anat, Vol 30, 1968, pp 29-43.  
\*NMS/1468

Morphological Examination of an Autotransplanted  
Lung, by V. I. Didenko, G. A. Savinsky, 8 pp.  
RUSSIAN, per, Arkh Pat, Vol 29, 1967, pp 56-60.  
\*NMS/1470

The Nervous System of an Autotransplanted Human  
Lung, by V. I. Didenko, 6 pp.  
RUSSIAN, per, Arkh Pat, Vol 29, 1967, pp 67-70.  
\*NMS/1467

Concerning the Morphological Substrate of the  
Bronchial Spasm caused by Proserin Administration,  
by V. I. Didenko.  
RUSSIAN, per, Arkh Pat, Vol 30, 1968, pp 35-41.  
\*NMS/1465

Activity of the Growing Point in Tree  
Species in Connection With Sexual Spe-  
cialization of Shoots, by I.D. Anikeeva,  
E. G. Minina, 15 pp.  
RUSSIAN, per, Botanicheskii Zhurnal,  
vol 44, no 7, 1959, pp. 907-916.  
CFSTI TT 69-53020

Study of Antibody Synthesizing Function of the  
Spleen in Mice in the Early Postnatal Period,  
by I. N. Mayskiy, et al. 4 pp.  
RUSSIAN, per, Dyull. Eksptl. Biol. i Med. Vol 67,  
No 9, 1969, pp 66-70.  
NASA TT F-12,777

The Participation of Macrophages and Neutro-  
phils of Immune Mice in Phagocytosis of Cells  
Infected by Virus, by A. A. Kyazimova, et al.  
6 pp.  
RUSSIAN, per, Dyull. Eksptl. Biol. i Med, Vol 67,  
No 9, 1969, pp 70-72.  
NASA TT F-12,778

Blood Circulation Change in the Upper Limb Under  
Static Load, by R. L. Timiyevskaya.  
RUSSIAN, per, Fiziologicheskii Zhurnal SSSR im.  
I. M. Sechenova, Vol 50, No 9, 1964, pp 1129-1135  
\*NASA TT F 12,999

Homotransplantation of Lungs in Dogs, by  
V. I. Struchkov, 12 pp.  
RUSSIAN, per, Grudn Khir, No 8, 1966, pp 44-49.  
NMS/1464

Some Aspects of Integration and Evolution of  
Bioenergetic Processes, by I. D. Ivanov, 14 pp.  
RUSSIAN, per, Sevast'ya Akademii Nauk SSSR,  
Seriya Biologicheskaya, Moscow, No 1, Jan-feb  
1970, pp 5-13.  
JPRS 50122

Second All-Union Conference on Controlled Biosynthesis and Population Biophysics, by I. A. Terskov, 5 pp.

RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, Moscow, No 1, Jan-Feb 1970, pp 151-153.  
JPRS 50122

Civil Defense Measures Stressed in Chemical Industry, by O. N. Tashin, 8 pp.

RUSSIAN, per, Khimicheskaya Promyshlennost', Moscow, No 12, 1969, pp 5-9.  
JPRS 49915

Restorative and Reconstructive Operations in Pulmonary Surgery, by M. I. Perelman.

RUSSIAN, per, Khirurgiya, Vol 43, 1967, pp 107-115.  
\*NMS/1466

Structural and Mechanical Properties of Muscular Tissue of Fish and Their Changes at Freezing, by N. K. Fedorova.

RUSSIAN, per, Kholodil'naya Tekhnika, No 10, 1969, pp 40-46.

\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 120

The Spectral Analysis of Ballistocardiograms of Healthy People with an Electronic Computer, by G. I. Sidorenko, G. K. Afanas'ev, 6 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 66-71.  
JPRS 49961

The Application of Radio Electronics and Television Technology in Investigations of the Peripheral Vascular-Capillary Blood Circulation, by G. S. Litvin, 11 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 71-80.  
JPRS 49961

Radio Capsules, by A. M. Sorin, 20 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 139-155.  
JPRS 49961

Comparative Results of Investigations of Gastric Secretion by the Method of Radio Telemetry and by Probing, by Z. E. Volynskiy, I. A. Shovchenko, 7 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 154-162.  
JPRS 49961

A Radio Telemetry Investigation of the Acid Forming Function of the Stomach and the Influence of Several Pharmacological Agents on It, by V. A. Timakov, Yu. I. Fishzon-Ryss, 9 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 163-169.  
JPRS 49961

The Diagnostic Possibilities of a Radio Telemetry Examination in Chronic Intestinal Diseases, by E. I. Atakhanov, A. M. Kharat'yan, 6 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 173-177.  
JPRS 49961

Signals of Written Speech and Methods of Investigating Them, by R. M. Bayevskiy, 10 pp.  
RUSSIAN, per, Metody Sborna i Analiza Fiziologicheskoy Informatsii, Problemy Biologicheskoy Kibernetiki, Moscow, 1969, pp 240-246.  
JPRS 49961

On Forecasting Systems, by Vladimir Aleksandrovich Lisichkin, 56 pp.  
RUSSIAN, bk, O Prognoziruyushchikh Sistemakh, 1969, 60 pp.  
JPRS 49730 (Revised)

Fundamentals of Paleontology, 485 pp.  
RUSSIAN, mono, Osnovy Paleontologii. Spravochnik dlia Paleontologov i Geologov SSSR, vol 2, 1962.  
\*CFSTI TT 70-50089

The Effect of Infestation with *Rickettsia Coxiella Burneti* and *Dermacentor sibiricus* on the Content of Free Amino Acids in the Tick *Hyalomma asiaticum*, by Yu. S. Balashov, 9 pp.  
RUSSIAN, per, Parazitologiya, No 4, 1969, pp 281-286.  
ARM/FSTC/HT-23-418-70

Development of Pyretic Reaction in Administration of Bacterial Lipopolysaccharide and of the Endogenic Pyrogen into the Lateral Cerebral Ventricles in Rabbits, by I. S. Repin, 7 pp.  
RUSSIAN, per, Patofiziologiya, No 4, 1964, pp 47-51.  
ACSI J-8115  
ID 2204004170

Ginseng Prized by Far East Pharmacologists, by Mark Popovskiy, 5 pp.  
RUSSIAN, np, Pravda, Moscow, 16 Nov 1969, p 3.  
JPRS 50181

Fleas: Do They Suffer From Plague, by K. I. Kondraskina.  
RUSSIAN, per, Problemy Osobo Opasnykh Infektsiy, No 5, 1969, pp 212-222.  
\*ACSI J-8176  
ID 2204005770

Problems of Distribution and Experimental Evaluation of Permissible Levels of Cs<sup>137</sup>, Sr<sup>90</sup>, and Ru<sup>106</sup>, by La. Buldakov, Yu. I. Moskalev, 275 pp.  
RUSSIAN, bk, Problemy Raspredeleniya i Eksperimental'noi Otsenki Dopustimyykh Cs<sup>137</sup>, Sr<sup>90</sup> i Ru<sup>106</sup>, 1968, pp 1-275.  
AEC-Tr-7126-70

Radio and Ecology, by Mark Yevgenyevich Chervyakov, Tat'yana Sergeyevna Chervyakova, 26 pp.  
RUSSIAN, bk, Radio i Ekologiya, Moscow, 7 Oct 1969, pp 1-32.  
JPRS 50043

Characteristics of Fish Meal From New Fish Species, by V. I. Yegorova, V. I. Treshchaya, 5 pp.  
RUSSIAN, per, Rybnoe Khoziaistvo, Vol 45, No 9, 1969, pp 71-73.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 26  
On Loan

Growth of Oak Shoots in Relation to Fruit-Bearing Processes, by L. Ya. Polozova, 25 pp.  
RUSSIAN, per, Soobshcheniya Instituta Lesa Akademii Nauk SSSR, no. 9, 1958, pp. 3-17.  
CFSTI TR 69-53022

Mysterious Behavior of Dolphins, by A. Tomilin, 8 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow, 25 Jan 1970, p 4.  
JPRS 50182

Late-Mesozoic Land Vertebrates of the Asian Part of the USSR, by A. K. Rezhdestvenskiy.  
RUSSIAN, mono, Stratigrafiya i Paleontologiya Mezozoiskikh i Paleogenovo-Neogenovykh Kontinentalnykh Otlozheniy Aziatskoi Chasti SSSR, 1967, pp. 82-92.  
ETC-69-36802  
NRCC C-8337

Salting of Herring in the Circulating Brine in Tanks on Board a Middle Trawler, by V. P. Fominova.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 79-86.  
\*Dept of Interior  
BCF/OFF

On Application of Polymers to Lessen the Swelling of Fish During the Storage in Chilled Sea Water and Brine, by F. P. Sidelkovskaya.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 87-92.  
\*Dept of Interior  
BCF/OFF

One Method of Determination of the Type of Calculating Device During Development of Automatic Control Systems, by Tul', M. P. 9pp.  
RUSSIAN, per, Uch. Zap. Ul'yanovskiy Gos. Ped. Inst., Vol 20, No 4, 1966, pp 121-129  
AIR/FTD/MT-24-396-69

New Data on the Stereoscopic Field of Vision of Healthy Individuals, by B. A. Treneyt, 5 pp.  
RUSSIAN, per, Vestnik Akademii Nauk Kazakhskoy SSR, Vol 25, Jul 1969, pp 68-71.  
JPRS 50068

Characteristic of the Spawning Hard, Spawning and Fecundity of *Perca fluviatilis* L, by V. N. Moroz.  
RUSSIAN, per, Vestnik Zoologii, No 4, July-Aug 1969, pp 49-54.  
\*Dept of Interior  
BCF/OFF

Problems of Occupational Hygiene and the Biological Effects of Electromagnetic Fields of Ultra-High Frequencies, by Z.V. Gordon, 161 pp.  
 RUSSIAN, bk, Voprosy Gigiyeny Truda i Biologicheskogo Deystviya Elektromagnitnykh Poley Sverkhvysokikh Chastot, 1966  
 \*CFSTI TT 70-50087  
 \*NASA TT F-633

New Data on the Taxonomy of Gobies Belonging to the Ponticola Iljin Group in Connection with the Problem of Intraspecies Mutation and Species Formation, by V. I. Pinchuk.  
 RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 4(51), 1968, pp 619-627.  
 Dept of Interior  
 Bureau of Commercial Fisheries  
 Office of Foreign Fisheries  
 A-34-Dec 1969-No 99  
 On Loan

Calculation of the Proportion of Local Stock in the Total Stock of Sockeye Salmon, by F. V. Krogus.  
 RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 6(53), 1968, pp 979-984.  
 Dept of Interior  
 Bureau of Commercial Fisheries  
 Office of Foreign Fisheries  
 A-34-Dec 1969-No 96  
 On Loan

Breeding of Sturgeon Above The Volgograd Power Station in 1966, by V. I. Shilov.  
 RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 6(53), 1968, pp 1097-1099.  
 Dept of Interior  
 Bureau of Commercial Fisheries  
 Office of Foreign Fisheries  
 A-34-Dec 1969-No 97  
 On Loan

Tagging Rainbow Trout, by G. G. Savost'yanova.  
 RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 6(53), 1968, pp 1099-1102.  
 Dept of Interior  
 Bureau of Commercial Fisheries  
 Office of Foreign Fisheries  
 A-34-Dec 1969-No 104  
 On Loan

Experience in the Application of the First Exercise in Water and Underwater Massage in the Treatment of Injuries of the Knee Joint, by A. I. Kaptein, 15 pp.  
 RUSSIAN, per, Voprosy Fizioter, Vol 52, 1967, pp 492-497.  
 NMS/1463

Effect of Methionine on Higher Nervous Activity in Protein-Deficient Rats, by I.A. Alekseeva, S. I. Kaplanskaya-Raiskay, 6 pp.  
 RUSSIAN, per, Voprosy Pitaniya, vol. 19, no. 1, 1960, pp.45-48.  
 CFSTI TT 69-53025

Cultivation of Viruses in a Suspension of Transferable Cells, by A. S. Novokhatkiy, 10 pp.  
 RUSSIAN, per, Voprosy Virusologii, 1968, pp 643-649.  
 ACSJ J-7829  
 FSTC/HT-23-056-69

Commission Chairman Reports on New Health Law, by N. N. Blokhin, 7 pp.  
 RUSSIAN, np, Zarya Vostoka, Tbilisi, 20 Dec 1969, p 2.  
 JPRS 49996

Study of the Activity of Antimicrobial Cellulose Fibers for Air Sterilization, by A. N. Margolina, T. V. Golosova, 6 pp.  
 RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii, Immunobiologii, No 3, 1969, pp 103-107.  
 ARM/FSTC/HT-23-250-70

A New Species of Trachurus, by V.V. Nekrasov, 4 pp.  
 RUSSIAN, per, Zoologicheskii Zhurnal, vol 45, no 1, 1966, pp. 141-144.  
 \*USDI/BCF TT 70-54007

On the Thickness of Bones in Caranagoid Fishes, by Iu. G. Aleev, 4 pp.  
 RUSSIAN, per, Zoologicheskii Zhurnal, Vol. 45, no. 6, 1966, pp. 944-947.  
 \*CFSTI TT 70-54008  
 AVAILABLE FROM BCF ONLY

Blood Supply of Cardiac Atrioventricular Valves in the Caspian Sea Seal (*Phoca Caspica* GM), by V. V. Sokolov, 5 pp.  
 RUSSIAN, per, Zoologicheskii Zhurnal, Moscow, Vol 47, No 8, 1968, pp 1262-1265.  
 JPRS 50154

A Study of Locomotion in Some Fishes, by Yu. Ye. Mordvinov, 12 pp.  
 RUSSIAN, per, Zoologicheskii Zhurnal, Moscow, Vol 47, No 9, 1968, pp 1394-1402.  
 JPRS 50194

Bacterial Polysaccharides as Pyrogens, by Y. P. Yefimtseva.  
 UKRAINIAN, per, Mikrobiologichnyi Zhurnal, Vol 27, 1965, pp 85-90.  
 \*ACSI J-8160  
 ID 2204005470

Chromosome Anomalies in Persons Working Under Conditions of Exposure to Ionizing Radiation, by St. Zhivkov, K. Kirov, 10 pp.  
 BULGARIAN, per, Suvremennaya Meditsina, Vol 19, No 5, 1968, pp 445-452.  
 AEC/UCRL-Tr-10442-70

Exposure of Medical Personnel to Radiation Discussed, by I. Khariev, D. Lekov, 5 pp.  
 BULGARIAN, per, Voenna Meditsinsko Delo, Sofia, Vol 24, No 6, Nov/Dec 1969, pp 3-6.  
 JPRS 50058

Chapter III. Rescuing Casualties, 8 pp.  
 CHINESE, bk, Min-ping Wei-sheng-yuan K'o-o-pen, Peking, Jun 1967, 128 pp.  
 JPRS 50085

Chapter V. Treatment of Wounds Caused by Chemical, Atomic and Bacteriological Weapons, 13 pp.  
 CHINESE, bk, Min-ping Wei-sheng-yuan K'o-o-pen, Peking, Jun 1967, 128 pp.  
 JPRS 50085

Effects of Weak Background Sound on Sound Signal Perception, by Chih-an Liang. 16 pp.  
 CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 1, 1965, pp 15-18.  
 AIR/FTD-HT-23-1138-68

Relation of Monophthong Identification Rate to Syllable Duration, by Chih-an Liang. 12 pp.  
 CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 1, 1965, pp 19-22  
 AIR/FTD-HT-23-1138-68

CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 1, 1965, pp 35.  
 AIR/FTD-HT-23-1138-68

Penetration of Soluble Pyrogenic Substance Through a Dialyzation Membrane From Dialyzing Fluid Contaminated with Gram-Negative Bacteria, by O. Vejhora.  
 CZECH, per, Casopis Lekarů Ceskych, Vol 107, 1968, pp 990-996.  
 \*ACSI J-8093  
 ID 2204003470

Estimation of 10 Trace Elements in Biological Material by the Method of Neutron Activation Analysis, by V. Karlicek, et al 5 pp.  
 CZECH, per, Casopis Lekarů Ceskych, vol 108 no 34, 1969, pp. 1017-1021.  
 \*CFSTI TT 70-56049  
 AVAILABLE from Nat'l. Bur. of Stand.

Tissue Reaction of the Submucosa to Suture Material in a Long-Term Experiment, by J. Kaklova.  
 CZECH, per, Ceskoslovenska Stomatologie, Vol 68, Mar 1968, pp 114-120.  
 \*ACSI J-8075  
 ID 2204002770

Questions about Radiation, by V. Dolezal, J. Luxa, 11 pp.  
 CZECH, per, Radar, No 1, 1968, pp 49-51.  
 AEC/ORNL-Tr-2219-70

Classification of Mammals from Java (with Dutch and Native Names, by H. J. V. Sody, 10 pp.  
 DUTCH, per, Natuurkundig Tijdschrift voor Nederlandsch-Indie, Vol 90, 1938, pp 741-746.  
 NMS/1442

Investigations About Pyrogens, by G. Van der Reijden.  
 DUTCH, per, Pharmaceutisch Weekblad, Vol 93, No 14, 12 July 1958, pp 657-671.  
 \*ACSI J-8161  
 ID 2204005570

Early Results of Pulmonary Allografts in Dogs Treated with Methotrexate and Anti-lymphocyte Serum, by H. Otte.  
 FRENCH, per, Acta Chir Belg, Vol 66, 1967, pp 747-760.  
 \*NMS/1448

Long-term results of pulmonary transplantation in dogs, by A. A. Blumensack.  
FRENCH, per, Acta Chir Belg, Vol 60, 1961, pp 161-174.  
\*NMS/1455

Schistosoma Mansoni Antigens. II. A Comparative Immunoelectrophoretic Study on Various Larval Stages and of Adults of Both Sexes, by A. Capron.  
FRENCH, per, Ann Inst Pasteur, Vol 109(5), 1965, pp 798-810.  
\*NMS/1443

Aneurysmatic Tumors of the Bone, by M. Pean.  
FRENCH, per, Bulletin de L'Academie de Medecin, Series 3, Vol 35, Feb 1896, pp 147-153.  
\*ACSI J-8072  
ID 2204003270

Pulsatile Angiomata of the Lower Maxillary, by M. S. Morestin, 10 pp.  
FRENCH, per, Bulletins et Memoires de L'Academie de Paris, Vol 35, 27 Oct 1909, pp 1020-1031.  
\*ACSI J-8113  
ID 2204003870

Effect on the Osmoregulation of Eel by Various Antibiotics Inhibitors of the Protein Synthesis or Cellular Rejuvenation, by J. Maets, 36 pp.  
FRENCH, per, Comp Biochem Physiol, No 30, 1969, pp 1125-1151.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 15  
On Loan

Contribution to the Study of Immunosuppressive Therapies of the Rejection Reaction of Pulmonary Allogenic Transplants, by G. Kabakele.  
FRENCH, per, CR Soc Biol, Vol 162, 1968, pp 585-588.  
\*NMS/1453

Epidemiology of Ringworm Infections, by A. Basset, M. Basset, 14 pp.  
FRENCH, per, Dermatologia Internationalis, No 5, 1966, pp 167-173.  
NMS/1478

Study on the Action of Various Immunosuppressive Agents on Pulmonary Allografts in the Dog, by R. Megevand.  
FRENCH, per, Helv Chir Acta, Vol 35, 1968, pp 327-330.  
\*NMS/1449

Rehabilitation of the spine in the swimming pool, by M. P. Deslous-Paoli.  
FRENCH, per, J Belg Med Physiol, Vol 11, 1966, pp 295-301.  
\*NMS/1472

Rehabilitation of the spine in the swimming pool, by M. P. Deslous-Paoli.  
FRENCH, per, J. Med Lyon, Vol 44, 1963, pp 927-932.  
\*NMS/1472

Functional Rehabilitation of Cocarthrosis Patients in the Swimming Pool, by M. M. Jacques.  
FRENCH, per, J Med Lyon, Vol 44, 1963, pp 935-948.  
\*NMS/1477

Current Problems Posed by Pulmonary Transplantation. I. Surgical Methods and Equipment, by P. Vuillard.  
FRENCH, per, Lyon Chir, Vol 64, 1968, pp 909-922.  
\*NMS/1450

Current Problems Posed by Lung Transplantation. II. Methods of Examination, Observation, and Conditioning of the Transplant, by P. Vuillard.  
FRENCH, per, Lyon Chir, Vol 65, 1969, pp 90-107.  
\*NMS/1452

Pathological Physiology and Surgical Treatment of the Arterial Diseases of the Vaso-Motor Nerve Center. Chapter 10. Diseases of the Vasodilatation, by Rene Leriche.  
FRENCH, bk, Physiologie Pathologique et Traitement Chirurgical Des Malades Arteriellles de la Vaso-Motricite. Chapter 10. 1945, pp 271-287.  
\*ACSI J-8191  
ID 2204005970

Rehabilitation in the Thermal Pool, by J. J. Herbert.  
FRENCH, per, Presse Therm Climat, Vol 99(3-4), pp 114-118.  
\*NMS/1475

Dislocations of the Patella Exclusive Recent Traumatic Dislocations, by J. Marion.  
FRENCH, per, Rev Orthop, Vol 36, 1950, pp 181-241.  
\*NMS/1476

Two Maxillary Vascular Tumors--Cavernous Hemangioma and Cirroid Aneurysm, by Dechaume, Grellet.  
FRENCH, per, Revue de Stomatologie, Vol 62, 1961, pp 691-706.  
\*ACSI J-8073  
ID 2204002670

Species Interrelationships in the Course of Cutaneous  
Angiomas of the Face, by Verne.

GERMAN, per, Semaine Des Hopitaux De Paris, Vol 2,  
No 34, 5 May 1951, pp 1467-1472.

\*ACSI J-8159

ID 2204005370

The Role of Molluscs in Species Formation and  
Phylogenesis of Trematodes, by K. Odening, 7 pp.  
GERMAN, per, Angewandte Parasitologie, Vol 5, No 1,  
1965, pp 71-75.

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Office of Foreign Fisheries

A-34-Dec 1969-No 110

On Loan

Investigation on the Metabolism of Nucleic Acids  
of Monkey Kidney Tissue Cells after Infection  
with SV-40. III. Studies on the Mechanism of  
Virus-Determined Enhancement of DNA Synthesis,  
by H. Werchau, G. Maass, 15 pp.

GERMAN, per, Arch Gesam Virusforsch, Vol 21,  
1967, pp 265-275.

AEC/ORNL-Tr-2129

Intoxications of Men and Animal by Phytoplankton  
Toxins From Surface Water, by G. Voger, 26 pp.

GERMAN, per, Archiv fur Hygiene und Bakteriologie,  
Vol 151, No 1/2, 1967, pp 1-21.

ACSI J-7700

FSTC HT-23-352-70

Combining the Advantages of the Pyrogen Test Methods  
of the 1958 British Pharmacopoeia, the 9th Austrian  
Pharmacopoeia of 1960, and the 16th U. S.  
Pharmacopoeia of 1960, by S. Simon.

GERMAN, per, Archives Internationales de  
Pharmacodynamie et de Therapie, Vol 146, No 1-2,  
1963, pp 134-144.

\*ACSI J-8190

ID 2204005870

A Case of Myclogenetic Hemangioma of the Occipital  
Bone, by G. Schoene, 17 pp.

GERMAN, per, Beitrage Zur Pathologischen Anatomie  
Und Zur Allgemeine Pathologie, Vol 7(Suppl), 1905,  
pp 685-701.

ACSI J-8069

ID 2204002270

A Case of Ossified Aroma in the Maxillary Sinus, by  
A. Boeck, 6 pp.

GERMAN, per, Deutsche Zeitschrift fur Chirurgie, Vol 10,  
1889, pp 85-90.

ACSI J-8132

ID 2204005070

The Behavior of Reflexes in Event of Cross-Separation  
of the Spinal Cord, by D. Gerhardt.

GERMAN, per, Deutsche Zeitschrift fur Nervenheilkunde,  
Vol 6, 1894, pp 127-136.

\*ACSI J-8083

ID 2204003170

Human Genetics and the Future of Man Discussed,  
by Rolf Loether, 16 pp.

GERMAN, per, Einheit, East Berlin, Feb 1970,  
pp 203-214.

JPRS 50064

Preliminary Investigations on Herring, by  
Falk Ulrich, 10 pp.

GERMAN, per, Fischerei-Forschung Wissenschaftliche  
Schriftenreihe, Vol 1, No 1, 1963, pp 20-24.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 44

On Loan

Considerations on the Industrialization of Herring  
Processing, by J. Witt, 31 pp.

GERMAN, per, Fischerei-Forschung, Vol 4, No 4,  
1966, pp 7-16.

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BCF/OFF

A-35-Jan 1970-No 45

On the Application of Antioxidants and Bactericidal  
Substances During Storage of Herring Fillet in Ice,  
by J. Voss, 34 pp.

GERMAN, per, Fischerei-Forschung, Vol 4, No 4,  
1966, pp 73-84.

Dept of Interior

Bureau of Commercial Fisheries

Office of Foreign Fisheries

A-34-Dec 1969-No 103

On Loan

A Contribution to the Theory of Splenomegaly, by  
I. Pentmann.

GERMAN, per, Frankfurter Zeitschrift fur  
Pathologie, Vol 18, No 1, 1915-1916, pp 121-151.

ACSI J-8066

ID 2204002070



The Theory of Hemangioma of the Spinal Column,  
by S. Frommer.  
GERMAN, per, Frankfurter Zeitschrift fur Pathologie  
Vol 22, No 3, 1920, pp 313-326.  
ACSI J-8068  
ID 2204002170

Hemangioma of the Skin Growing by Infiltration  
and Multiple Capillary Ecstasies of the Skin and  
Inner Organs. II. The Vertebral Angioma, by  
D. Toepfer.  
GERMAN, per, Frankfurter Zeitschrift fur Pathologie  
Vol 36, No 3, 1928, pp 337-345.  
\*ACSI J-8070

Tissue Reactions to Injected Liquid Silicon Com-  
pounds, Report on Two Cases, by T. H. Sternberg, 10 pp  
GERMAN, per, Der Hautarzt, Vol 15, No 6, 1964,  
pp 281-285.  
ACSI J-8081  
ID 2204002970

Bioassayed Experiments on Biological Compatibility of  
Silicons, by G. Polemann.  
GERMAN, per, Klinische Wochenschrift, Vol 33, No 41/42,  
1955, pp 457-462.  
\*ACSI J-8082  
ID 2204003070

Contributions to the Pathological Anatomy of the  
Thoracic Duct. III. Large Cysts in the Thoracic  
Duct, by R. Enzmann, 6 pp.  
GERMAN, Thesis, Medical Faculty of Basel, pp 34-37.  
NMS/1471

On the Development of Congenital Deformities  
Following Influenza of the Mother, by A. Schubert.  
GERMAN, per, Paediat Grenzgeb, No 7, 1968,  
pp 205-209.  
\*NMS/1444

Pyrogenic Materials and Their Removal From Injection  
Solutions, Syringes, Blood Transfusion Apparatus,  
and Other Sterile Equipment, by K. Ruda.  
GERMAN, per, Pharmazie, Vol 13, No 11, 1958,  
pp 370-372.  
\*ACSI J-8103  
ID 2204003570

Comparison of Instructions Concerning Testing for  
Pyrogens in Different Pharmacopoeias, by H. Wigert.  
GERMAN, per, Pharmazeutische Zentralhalle fur  
Deutschland, Vol 101, No 9, 1962, pp 527-534.  
\*ACSI J-8215  
ID 2204006170

The Diurnal Variation of Metabolic Proc-  
esses and of Body Temperature Under Con-  
ditions of Fasting and Complete Muscle  
Rest, by J. E. Johansson, 58 pp.  
GERMAN, per, Skandinavisches Archiv fur  
Physiologie, vol 8, 1898, pp. 85-142.  
\*CFSTI TT 70-58071  
\*NASA TT F-12,875

Undesirable Secondary Radiation in the Irradiated  
Space of a Siemens 42-MeV Betatron, by J. Nassow  
H. D. Strueter, 26 pp.  
GERMAN, per, Strahlentherapie, Vol 136, 1968,  
pp 183-195.  
AEC/SLAC-Tr-100

The Vertebral Angioma, Lipoma, and Osteoma, by  
K. Makrycostas, 53 pp.  
GERMAN, per, Virchow's Archiv fur Pathologische  
Anatomie und Physiologie, Vol 265, No 2,  
27 Aug 1927, pp 259-303.  
ACSI J-8067  
ID 2204001770

Lung Homotransplantation in Dogs, by C. Carpinisa  
GERMAN, per, Zbl Chir, Vol 92, 1967, pp 1845-1850.  
\*NMS/1446

Schrittmacher with Holt-Oram-Syndrome, Interest in  
Individual Observations, by A. Seling.  
GERMAN, per, Zbl Chir, Vol 42, 1968, pp 1488-1492  
\*NMS/1473

On the Quantitative Determination of Lipoids  
(Micromethod) by Means of the Sulfaphospho-  
vanillin Reaction Common to many Natural Lipoids,  
by N. Zoellner.  
GERMAN, per, Z Ges Exp Med, Vol 135, 1962,  
pp 545-561.  
\*NMS/1474

Chromatographical Thin Layer Method for Isolation  
and Determination of Porphyrins in Urine, by  
M. Doss.  
GERMAN, per, Z Klin Chem, No 5, 1967, pp 260-264.  
\*NMS/1447

- Experiment on Separation of Pyrogenic Principles From Myxoviruses, by R. Siergert, GERMAN, per, Zeitschrift Fuer Naturforschung, Vol 22B 1967, pp 155-158.  
\*ACSI J-8116  
ID 2204004270
- On the Mechanism of Pyrogenic Action of Finely Particulate Materials, by E. C. Vigliani. ITALIAN, per, Lavoro E Medicina, Vol 52, Nov 1961, pp 641-648.  
\*ACSI J-8157  
ID 2204005170

Studies on the Behavior of the Mouth-Breeding, by W. Kuehne, 39 pp.  
GERMAN, per, Z. Tierpsychol, Vol 18, No 1, 1960, pp 33-54.  
Dept of Interior  
BCF/OFF  
No A-35/Jan 70/No 4  
On Loan

Lung Function after Homologous Pulmonary Transplantation Controlled by Gas Analysis Studies of the Blood, by E. Margaria.  
ITALIAN, per, Minerva Anest, Vol 34, 1968, pp 1312-1317.  
\*NMS/1458

Contributions to the Study of Intra-uterine Pneumopathies, by G. Adinolfi.  
ITALIAN, per, Arch Ostet Ginec, Vol 73, 1968, pp 829-843.  
\*NMS/1456

Experimental Research on Pulmonary Homotransplantation with the Preserved Organ, by E. Masenti.  
ITALIAN, per, Minerva Chir, Vol 23, 1968, pp 1011-1029.  
\*NMS/1461

Changes in Serum Levels of Transaminases as an Index of Adaptation of the Body to Homologous Lung Transplantation, by L. Piazza.  
ITALIAN, per, Arch Sci Med (Torino), Vol 124, 1967, pp 763-769.  
\*NMS/1457

Virological Research in 43 Newborn Infants with Acute Respiratory Diseases, by M. Midulla, L. Bertolini, 8 pp.  
ITALIAN, per, Minerva Pediat, Vol 19, 1967, pp 767-769.  
NMS/1459

Behavior of the Blood Serum Components in Dogs Subjected to the Homologous Pulmonary Transplantation Operation, by L. Piazza.  
ITALIAN, per, Arch Sci Med (Torino), Vol 124, 1967, pp 770-778.  
\*NMS/1460

Bronchographical Findings in Lung Transplants in the dog, by F. Morino.  
ITALIAN, per, Minerva Radiol, Vol 13, 1968, pp 421-436.  
NMS/1462

Do Pyrogens Have an Allogenic Effect, by F. Sicuteri.  
ITALIAN, per, Bollettino del Societa Italiana Di Biologia Sperimentale, Vol 42, 15 July 1966, pp 840-843.  
\*ACSI J-8158  
ID 2204005270

Irradiation of Fishery Foods, by Harumi Tozawa, 56 pp.  
JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 34, No 8, 1968, pp 740-755.  
Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 102  
On Loan

New Experience in the Treatment of Ascites in Morgagnilaennec Cirrhosis with Reinfusion of Autogenic Ascitic Fluid, by M. Barlattani, A. Alessandrini, 39 pp.  
ITALIAN, per, Clin Ter, Vol 34, No 3, 1965, pp 210-228.  
\*NMS/1425

Studies on the Pyrogen Test. I. Application of Electrical Thermometer to the Pyrogen Test(1), by T. Kuwamura, Y. Muto.  
JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 82, 1964, pp 59-62.  
ACSI J-8119  
ID 2204004470

Studies on the Pyrogen Test. II. Pyrogen Test of Water for Injection(1), by T. Kuwamura, Y. Mito. JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 82, 1964, pp 63-65.

ACSI J-8120

ID 2204004570

Studies on the Pyrogen Test. III. Application of Electrical Thermometer to the Pyrogen Test(2), by S. Tanaka, T. Kuwamura.

JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 84, 1966, pp 39-42.

ACSI J-8121

ID 2204004670

Studies on the Pyrogen Test. IV. Application of Electrical Thermometer to the Pyrogen Test(3), by S. Tanaka, T. Kuwamura, 6 pp.

JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 84, 1966, pp 43-46.

ACSI J-8122

ID 2204004770

Studies on the Pyrogen Test. V. Pyrogen Test of Water for Injection(2), by M. Ueda, T. Kuwamura. JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 84, 1966, pp 46-47.

ACSI J-8123

ID 2204004870

Results of Pyrogen Test for National Certification of Glucose Injection and Ringer's Solution During 1951-1966.

JAPANESE, per, Bulletin of the National Institute of Hygiene Science, Tokyo, Vol 85, 1967, pp 180-183.

ACSI J-8124

ID 2204004970

Radiactivity Contamination of the Ocean-- Concentration and Accumulation by Living Organisms and Minamata Disease, by Makiyama Kenji, 17 pp. JAPANESE, per, Kogai to Taisaku, Vol 4, No 5, 1969, pp 255-263.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 153

On Loan

Fisheries Biology of the Tanner Crab, III. The Density Distribution and Carapace Width Composition in Relation to the Depth, by Tohshi Kon, 12 pp. JAPANESE, per, Nihon Suisan Gakkai-Shi, Vol 35, No 7, 1969, pp 624-628.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 20

On Loan

The Gonadotropin of Fishes, by Fumio Yamazaki, 32 pp. JAPANESE, per, Nihon Suisan Gakkai-Shi, Vol 35, No 7, 1969, pp 695-709.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 16

On Loan

Twenty-Five Years of Inland Fishery Science, by B. Dabrowski, 7 pp. POLISH, per, Gospodarka Rybna, Vol 21, No 7(217), 1968, pp 3-4.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 55

On Loan

The Pharmacology of Bacterial Pyrogens, by Jan Venulet, 40 pp.

POLISH, per, Postepy Higieny i Medycyny Doswiadczonej, Vol 20, 1966, pp 197-232.

ACSI J-8114

ID 2204004070

Character of Otoliths in Herring From the Dunmore Region, by Jozef Sosinski, 19 pp. POLISH, per, Prace Morskiego Instytutu Rybackiego, No 15A, 1969, pp 193-209.

Dept of Interior

BCF/OFF

A-35-Jan 1970-No 43

On Loan

Prawn Catches on the Georges Bank, by F. Buckl. POLISH, per, Technika i Gospodarka Morska, Vol 19, No 5(215), 1969, pp 210-214.

\*Dept of Interior

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Office of Foreign Fisheries

A-34-Dec 1969-No 116

Biology and Catches of Jack Mackerel Off West Africa  
by J. Wojciechowski,  
POLISH, per, Technika i Gospodarka, Vol 19, (6/216),  
1969, pp 267-270.  
\*Dept of Interior  
BCF/OFF

Radiation-Induced Changes in Medical Personnel  
Working with X-Rays, by D. Jarczyk, 5 pp.  
POLISH, per, Wiadomosci Lekarskie, Vol 21, No 9,  
1968, pp 770-774.  
ACSI J-7884  
ID 2204000170

Research on Organophosphorus Insecticide  
Toxicity, by S. Pallade, 12 pp.  
RUMANIAN, per, Igiene, Bucharest, Jan 1970,  
pp 43-50.  
JPRS 50120

Action of High-Frequency Currents on the Body, by  
Dr. I. Plesca, 6 pp.  
RUMANIAN, per, Medicina Interna, Vol 20, No 1,  
1968, pp 41-47.  
ACSI J-7885  
ID 2204000270

Epidemiological Significance of Tropical  
Parasitic Diseases Imported into Yugoslavia,  
by M. Jevtic, A. Zdravkovic, 5 pp.  
SERBO-CROATIAN, per, Narodno Zdravlje,  
Belgrade, No 11-12, 1969, pp 430-432.  
JPRS 50190

Miracidium of Schistosoma Mansoni. Anatomy,  
Cytology, Physiology, by C. Ottolina.  
SPANISH, per, El Miracidio del Schistosoma Mansoni,  
Vol 12(1-4), 1957, pp 98-214.  
\*NS/1480

Organic Changes During Treatment for Chlorpromazine,  
by E. Encinas.  
SPANISH, per, Revista Neuropsiquiat, Vol 20, 1957,  
pp 243-279.  
\*ACSI J-8117  
ID 2204004370

Cyclotriphosphazine Derivatives as  
Antiwear Additives During Boundary  
Friction of Steel Under Conditions  
of High Sliding, by L. L. Myannik,  
Yu. Ya. Podolskiy, 19 pp.  
RUSSIAN, rpt, An SSSR. Nauchnyy Sovet. Po  
Treniyu i Smazkam, 1968, pp 207-214  
AIR/FTD HT 23-166-69

High-Pressure Chemical Lasers and Light-Stimulated  
Chemical Reactions, by S. I. Pekar.  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 187, No 3, 1969,  
pp 555-557.  
Dept of Navy APL/JHU T-2396

Chemistry of Oxidative Transformations of  
Cellulose, by E.D. Stakheeva-Kaverzneva,  
24 pp.  
RUSSIAN, per, Doklady na Mezhdunarodnom  
Kongresse Teoreticheskoi i Prikladnoi  
Khimii, vol 13, 1953, pp. 305-327.  
CPSTI TT 69-53046

Chemical Raw Materials Needed for Consumer Goods,  
by B. Kislyakov, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 49,  
Dec 1969, p 10.  
JPRS 50034

Study of the Process of Formation  
of Carbon Black Particles During  
Decomposition of Hydrocarbons, by  
V. F. Surovikin, L. S. Kazakov,  
14 pp.  
RUSSIAN, rpt, Gazovaya Promyshlennost'  
Vol 12, No 8, 1967, pp 40-46  
AIR/FTD-HT-23-330-69

Synthesis and Properties of Fluoronitroalcohols.  
II (B-Fluoronitroalcohols on the Basis of Glyoxal and  
its Derivatives Containing Different Functional  
Groups), by L. T. Yezhenko, G. V. Oreshko, 8 pp.  
RUSSIAN, per, Izvestiya AN SSSR, Ser Khim,  
12 July 1968, pp 1-9.  
Dept of Navy NIC Trans 3016

Trimethylaminomethane in Mannich Reactions, by  
Z. A. Nesterenko, O. M. Savchenko, 9 pp.  
RUSSIAN, per, Izvestiya AN SSSR, Ser Khim,  
10 Nov 1968, pp 1-8.  
Dept of Navy NIC Trans 3015

**N-(2-Fluoro-2,2-Dinitroethyl)-N-Nitroamino Alcohols and Some of Their Derivatives**, 9 pp.  
RUSSIAN, per, Izvestiya AN SSSR, Ser Khim, 19 Nov 1968, pp 1-9.  
Dept of Navy NIC Trans 3014

**Chemistry of the Haloid Compounds of Fluorine**, by N.S. Nikolayev, V.F. Sukhovikhov, 451 pp.  
RUSSIAN, book, Khimiya Galoidnykh Soyedineniy Flora, 1968, pp 1-348.  
AIR/FTD-HT-23-1370-68

**Magnetic Water: Between Scylla and Charybdis**, by V. I. Klassen, 8 pp.  
RUSSIAN, per, Khimiya i Zhizn', Moscow, No 9, Sept 1969, pp 24-27.  
JPRS 50161

**It is Magnetic But Not Water**, by V. Batrakov, 5 pp.  
RUSSIAN, per, Khimiya i Zhizn', Moscow, No 9, Sept 1969, pp 28-29.  
JPRS 50161

**Anomalous Water, Discovery or Error**, by B. V. Deryagin, 8 pp.  
RUSSIAN, per, Khimiya i Zhizn', Moscow, No 12, 1969, pp 37-44.  
JPRS 50006

**Regularities in the Biochemical Decomposition of Albite and Muscovite**, by I. N. Antipov-Karatayev, et al.  
RUSSIAN, per, Kora Vyvetrivania, Akad. Nauk SSSR, Inst. Geol. Rudn. Mestorozhd', Petrogr. Mineralog. i Geokhim. Vol 7, 1966, pp 53-88.  
\*NASA TT F-12749

**The Chemistry of Polymeric Inorganic Cementing Materials**, by Yu. S. Cherikinskiy, 280 pp.  
RUSSIAN, bk, Leningrad-Khimiya, 1967, pp 1-223.  
ACSI J-7689  
FSTC-HT-23-447-70

**Chemical Kinetics**, by N. M. Emanuel'. 112 pp.  
RUSSIAN, bk, Razvitiye Fizicheskoy Khimii, 1967, pp 14-82.  
AIR/FTD/MT-24-332-69

**Thermochemistry**, by V. P. Kolesov. 52 pp.  
RUSSIAN, bk, Razvitiye Fizicheskoy Khimii, 1967, pp 311-344.  
AIR/FTD/MT-24-332-69

**Radiation Chemistry**, by L. T. Burayenko, V. V. Sanyeva, et al. 57 pp.  
RUSSIAN, bk, Razvitiye Fizicheskoy Khimii, 1967, pp 345-383.  
AIR/FTD/MT-24-332-69

**Properties and Preparation of Explosives**, by N. Ye. Yaremanko, B. Ya. Svetlov, 125 pp.  
RUSSIAN, bk, Toriya i Tekhnologiya Iromyshlennyykh Vzryvchatykh Veshchestv, Moscow, 1957, pp 120-211.  
JPRS 50025

**Heat of Wetting of Cotton Cellulose in Organic Liquids**, by Kh. U. Usmanov, et al., 8 pp.  
RUSSIAN, per, Uzbekskii Khimicheskii Zhurnal, no. 2, 1959, pp. 21-25.  
CFSTI TT 69-53028

**Chemistry of Gossypol**, by A. Ismailov, et al. 12 pp.  
RUSSIAN, per, Uzbekskii Khimicheskii Zhurnal, no. 3, 1959, pp. 34-41.  
CFSTI TT 69-53029

**The Tasks for Fundamental Investigations of Polymers Stabilization**, by N. M. Emanuel', 10 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, No 7, 1969.  
ARM/FSTC/HT-23-289-70

**Combined Action of Carbon Monoxide and Hydrogen Sulfide**, by R. K. Melnichenko. 6 pp.  
RUSSIAN, per, Vrachebnoe Delo, No 7, 1968, pp 87-90.  
NASA TT F-12,721

**Chemical and Vibrational Relaxation in Supersonic Carbon Dioxide Flows**, by N. I. Yushchenko et al.  
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 11, No 9, 1969, pp 417-424.  
\*NASA TT F 12,922

**X-Ray Measurement of the Chemical Diffusion Coefficient in the Au-Pt System**, by J. Kucera, 6 pp.  
CZECH, per, Ceskoslovensky Casopis pro Fysiku, 17, 1967, pp. 262-267.  
\*CFSTI TT 70-56043  
AVAILABLE FROM NBS ONLY

Effect of Nitriding on the Internal Damping of Steel, by J. Vodsedalek, 5pp.  
CZECH, per, Hutnicke Listy, vol 13, 1958 pp. 9-13.

\*CFSTI TT 70-56046  
AVAILABLE FROM NBS ONLY

Self-Diffusion in Pure Cr, by H.W. Paxton, et al, 6 pp.  
GERMAN, per, Archiv fur Das Eisenhüttenwesen, 30, 1959, pp. 55-60.

\*CFSTI TT 70-58093  
AVAILABLE FROM NBS ONLY

Diffusion of Zn and Cd into Sb, by S. Trajkov, 4 pp.  
CZECH, per, Hutnicke Listy, vol 14 no 8, 1959, pp. 670-673.

\*CFSTI TT 70-56035  
AVAILABLE FROM NBS ONLY

Synthesis, Toxicity, and Cholinesterase-Inhibiting Activity of N-Methyl-1-2 Formylpyridinium Oxime Salts of Insecticidal Phosphates, by G. Kuchn, 9 pp.  
GERMAN, per, Arch Pharm, Vol 300, No 4, 1967, pp 363-370.

ACSI J-7687  
FSTC HT-23-354-70

Diffusion and Formation of Intermetallic Phases, by S. Trajkov, 8 pp.  
CZECH, per, Hutnicke Listy, vol 16, no 3 1961, pp. 198-205.

\*CFSTI TT 70-56036  
AVAILABLE FROM NBS ONLY

Tasks and Problems of Industrial Toxicology From the Viewpoint of Technical Chemistry, by Karlheinz Lohs, 11 pp.  
GERMAN, per, Chemische Technik, Vol 17, No 1, 1965, pp 38-41.

ACSI J-7984  
FSTC/HT-23-669-70

Diffusion of Copper in Gamma-Iron, by F. Sirca, 10 pp.  
CZECH, per, Rudarsko-Metallurski Zbornik, 4, 1959, pp. 371-380.

\*CFSTI TT 70-56038  
AVAILABLE FROM NBS ONLY

Steps Involved in the Synthesis of Methionine by E. Coli, by J. Stavrianopoulos, L. Jaenicke, 40 pp.  
GERMAN, per, European J Biochem, Vol 3, No 1, 1967, pp 95-106.

AEC/UCRL-Tr-10444-70

Carbon Monoxide Equilibrium Pressure over Uranium Oxycarbides in the Presence of Uranium Dioxide, by J. Bazin, A. Accary, 13 pp.  
FRENCH, per, Bull Soc Franc Ceram, No 79, Apr/Jun, 1968, pp 109-116.  
AEC/ANL-Tr-792-70

Measurement of Self-Diffusion in Ge, by H. Widmer, et al, 26 pp.  
GERMAN, per, Helvetica Physica Acta, 34, 1961, pp. 635-660.

\*CFSTI TT 70-58098  
AVAILABLE FROM NBS ONLY

Changes in Solvent Structure and Luminescence of the Rigid Solutions (T-4S Emission and Retarded Fluorescence), by Andre Martinez, D. Dorignac, 17 pp.  
FRENCH, per, J Chimie Phy et Physicochimie Biol, Vol 66, No 5, 1969, pp 817-824.  
AEC/UCRL-Tr-10435-69

Determination of Grain Boundary Diffusion Coefficients With the Help of Radioactive Tracers by Measuring Integral Residual Activity, by A. Hassener, et al, 3 pp.  
GERMAN, per Isotopentechnik 1, no 7, 1961 pp. 193-195.

\*CFSTI TT 70-58106  
AVAILABLE FROM NBS ONLY

Process of Preparing Shaped Substances in Polyurethane as well as Products Analogous to Those Obtained by the Present Process or a Similar one, 9 pp.  
FRENCH, Patent No. 1490316 25 Aug 1966, 4 pp.  
NASA TT F-12,834

Removal of Condensed Phosphates from Radioactive Wastes, by S. Drobnik.  
GERMAN, rpt, KFK-917, Dec 1968.  
\*AEC/ORNL-Tr-2292

Diffusion of Sb in Ag, by W. Weller 3pp  
GERMAN, per, Ann. Physik, 20, 1957 pp. 42-44.

\*CFSTI TT 70-58118  
AVAILABLE FROM NBS ONLY

Diffusion in Mo-Pt Alloys, by K. Kirner,  
7 pp.  
GERMAN, per, Metall, 16, 1962, pp. 672-678.  
\*CFSTI TT 70-58091  
AVAILABLE FROM NBS ONLY

Self-Diffusion in Tungsten, by W. Danneberg  
5 pp.  
GERMAN, per, Metallwissenschaft und Technik  
15, 1959, pp. 977-981.  
\*CFSTI TT 70-58092  
AVAILABLE FROM NBS ONLY

Measurement of Self-Diffusion in Alpha-  
Iron in Union with Co<sup>60</sup> in Alpha-Iron,  
by W. Lange, et al, 12 pp.  
GERMAN, per, Neue Hutte, 6, (no.1) 1961  
pp. 33-44.  
\*CFSTI TT 70-58103  
AVAILABLE FROM NBS ONLY

Psychopharmaceuticals: Chemistry and Effect of Plant  
Derived and Synthetic Psychotropic Compounds, by  
R. Voigt, 25 pp.  
GERMAN, per, Pharmazie, No 17, 1962.  
ACSI J-7679  
FSTC-HT-23-402-70

Activation Analysis of Some Light Elements in  
Various Materials Using Protons and Particles,  
by C. Engelmann.  
GERMAN, rpt, Proceeding of a Colloquium on Methods  
of Radiochemical Analysis, Salzburg, 19-23 Oct  
1964, IAEA, Paper No. SM-55/67, Vol 1, pp 405-418  
CEGB  
C.E. trans 5111

Defect Formation Agl, by H.J. Oel, 4pp.  
GERMAN, rpt, Semiconductors and Phosphors,  
Proc. Intern. Colloqs., 1956, pp. 431-434.  
\*CFSTI TT 70-58080  
AVAILABLE FROM NBS ONLY

The Diffusion of some Elements in Silicon,  
by D.A. Petrow, et al. 4 pp.  
GERMAN, rpt, Semiconductors and Phosphors,  
Proc. Intern. Colloqs., 1956, pp.652-655.  
\*CFSTI TT 70-58081  
AVAILABLE FROM NBS ONLY

Application Limits of the Polarographic Method  
in Inorganic Analysis, by F. V. Sturm, 9 pp.  
GERMAN, per, Z Anal Chem, Vol 173, 1960, pp 11-17.  
AEC/ORNL-Tr-2176-69

Preparation and Structure of the Beryllium Boride  
Be4B, by H. J. Becher, A. Schafer, 8 pp.  
GERMAN, per, Z Anorg Allgem Chem, Vol 318, No 5/6,  
1962, pp 304-312..  
AEC/UCRL-Tr-10435-70

Metallographic and X-Ray Study of Diffusion  
in the Ag-Zn System, by Th. Heumann, et al  
6 pp.  
GERMAN, per, Z. Elektrochem, 60, 1956  
pp. 1154-1159  
\*CFSTI TT 70-58113  
AVAILABLE FROM NBS ONLY

Experiments on the Investigation of Ele-  
mentary Processes of Crystal Growth With  
the Help of Radioactive Tracers, by  
A. Neuhaus, 6 pp.  
GERMAN, per, Z. Elektrochem, vol 61, 1957  
pp. 37-42.  
\*CFSTI TT 70-58107  
AVAILABLE FROM NBS ONLY

Molecular and Temperature Dependence of  
Diffusion and Self-Diffusion in Inert  
Gases, by K. Schafer et al. 7 pp.  
GERMAN, per, Z. Elektrochem, 61, 1957  
pp. 246-252.  
\*CFSTI TT 70-58114  
AVAILABLE FROM NBS ONLY

Diffusion of Hg in Amorphous Se, by  
S. Steeb, et al, 5 pp.  
GERMAN, per Z. Elektrochem, 61, 1957  
pp. 763-767.  
\*CFSTI TT 70-58115  
AVAILABLE FROM NBS ONLY

On Diffusion in Ag-Al Alloys, by  
Th. Heumann, et al, 9 pp.  
GERMAN, per, Zeitschrift fur Elektrochemie  
61, 1957, pp. 1138-1146.  
\*CFSTI TT 70-58078  
AVAILABLE FROM NBS ONLY

Diffusion in W-Nb System (Single and Poly-Crystals), by E. Gebhardt, et al. 7 pp.  
GERMAN, per, Z. Metallkde., 54, 1963, pp. 698-704.  
\*CFSTI TT 70-58101  
AVAILABLE FROM NBS ONLY

Diffusion and the Kirkendall Effect in Intermetallic Phases of the System Cu-Sn, by R. Starke, et al, 10 pp.  
GERMAN, per, Z. Metallkde., 55, 1964 pp. 107-116.  
\*CFSTI TT 70-58111  
AVAILABLE FROM NBS ONLY

Study of Tl Diffusion in the Hexagonal Form of Se, by B. Gudden, et al 4 pp  
GERMAN, per, Z. Naturforschg. 1, 1946, pp. 508-511.  
\*CFSTI TT 70-58121  
AVAILABLE FROM NBS ONLY

Self-Diffusion in Mo, by W. Danneberg, et al, 4 pp.  
GERMAN, per, Z. Naturforschg. 162, 1961 pp. 854-857.  
\*CFSTI TT 70-58099  
AVAILABLE FROM NBS ONLY

Paramagnetic Resonance of Mn ions in AgCl Single Crystals, by J. Schneider, et al. 4 pp.  
GERMAN, per, Z. Naturforschg. 17a, 1962 pp. 155-158.  
\*CFSTI TT 70-58100  
AVAILABLE FROM NBS ONLY

Self-Diffusion of K in K-Metal, by H. Cordes, et al, 1 pp.  
GERMAN, per, Z. Naturforsch. 18a, 1963 pp. 264.  
\*CFSTI TT 70-58088  
AVAILABLE FROM NBS ONLY

On the Kinetics of Thermal Formation of Vacancies in Pt., by R. Sizmann, et al. 2 pp.  
GERMAN, per, Z. Naturforschg. 18a, 1963 pp. 673-674.  
\*CFSTI TT 70-58102  
AVAILABLE FROM NBS ONLY

Thermoeffusion in Binary Multiphase Metals of Cu-Sn, by H. G. Feller, 12 pp.  
GERMAN, per, Z. Naturforschg., 18a, 1963 pp. 1225-1235.  
\*CFSTI TT 70-58109  
AVAILABLE FROM NBS ONLY

Kinetics of Hydrogen Permeation of Ni. by W. Fischer, 6 pp.  
GERMAN, per, Z. Naturforschg. 22a, 1967, pp. 1581-1586.  
\*CFSTI TT 70-58122  
AVAILABLE FROM NBS ONLY

The Diffusion of zinc in Zinc Oxide, by R. Pohl, 9 pp.  
GERMAN, per, Zeitschrift fur Physik, 155, 1959, pp. 120-128.  
\*CFSTI TT 70-58072  
AVAILABLE FROM NBS ONLY

Self-Diffusion of Anions in AgI and CuI, by J. Nolting, 3 pp.  
GERMAN, per, Zeitschrift fur Physik chemie Neue Folge, vol. 19, 1959, pp. 118-120.  
\*CFSTI TT 70-58075  
AVAILABLE FROM NBS ONLY

Kirkendall Effect in the In-Tl System, by D. Heitkamp, et al, 3 pp.  
GERMAN, per, Zeitschrift fur Physik Chemie Neue Folge, vol. 19, 1959, pp. 121-123.  
\*CFSTI TT 70-58076  
AVAILABLE FROM NBS ONLY

Observations of Diffusion in the Ag-Au System, by V. Ruth, 19 pp.  
GERMAN, per, Zeitschrift fur Physik Chemie Neue Folge, vol. 20, 1959, pp. 313-331.  
\*CFSTI TT 70-58077  
AVAILABLE FROM NBS ONLY

Self-Diffusion of Each of the components in In-Thallium Alloys, by K. Wagener, 10 pp.  
GERMAN, per, Zeitschrift fur Physik Chemie Neue Folge, vol 21, 1959, pp. 153-162.  
\*CFSTI TT 70-58074  
AVAILABLE FROM NBS ONLY



Defects in Ag<sub>2</sub>S, by E. Rickert, 4pp.  
GERMAN, per, Zeitschrift fur Physik, Chemie  
Neue folge, Vol 24, 1960, pp. 418-421.  
\*CFSTI TT 70-58079  
AVAILABLE FROM NBS ONLY

Measurement of diffusion Coefficients in  
Solids at Various Temperatures Using Con-  
tinuous Experimental Method of Radioactive  
Surface of I into AgI, by J. Nolting, 14pp.  
GERMAN, per, Zeitschrift fur Physikalische  
Chemie Neue Folge, vol. 32, 1962, pp. 154-167  
\*CFSTI TT 70-58095  
AVAILABLE FROM NBS ONLY

Electrotransport in Ag-Zn Alloys, by  
H. G. Feller, et al, 22 pp.  
GERMAN, per, Zeitschrift fur Physikalische  
Chemie Neue Folge, vol 33, 1962, pp. 298-319  
\*CFSTI TT 70-58097  
AVAILABLE FROM NBS ONLY

Study of diffusion Processes by Means of  
Radioisotopes, by D. Vodros, 5 pp  
HUNGARIAN, per, KFKI Közlemenyek, 5, 1957  
pp. 263-267.  
\*CFSTI TT 70-56031

Formation of Nitride Compounds With Some  
High Melting Point Metals, by J. Vero, 7pp  
HUNGARIAN, per, Koh. Lapok, vol 97, 1964,  
pp. 353-359.  
\*CFSTI TT 70-56034

High Nickel Maraging Steel by Powder Metallurgy  
1. - 18Ni-7Co-5Mo Steel, by T. Kinoshita,  
JAPANESE, per, Funtai Oyobi Fumatsu Yakin,  
Vol 13, No 5, 1966, pp 228-235.  
NLL Ref: 9022.06 (5929)

Diffusion of Fe and Cr in Alloys of Fe-Cr,  
by M. Radwan, et al 18 pp.  
POLISH, per, Archiwum Hutnictwa, 10 1965  
pp. 337-356.  
\*CFSTI TT 70-55079

Deodorization in Fish-Meal Factories, by  
S. Kobylinski, Z. Miwinski, 13 pp.  
POLISH, per, Technika i Gospodarka Morska, Vol 18,  
No 2, 1969, pp 61-63.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 27  
On Loan

Aluminum Hydroxides and Oxides-Their Preparation  
and Properties, by Ryszard Fiedorow, 15 pp.  
POLISH, per, Wiad Chem, Vol 21, 1967, pp 761-770.  
AEC/ORNL-Tr-2256-70

Laboratory Experiments on the Change of Mercury  
Compounds From one into Another, by Arne Jernelev,  
6 pp.  
SWEDISH, per, Vatten, Vol 24, No 4, 1968,  
pp 360-362.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 13  
On Loan

*Earth Sciences & Oceanography*

Antarctica: Commission Reports, 1967, 212pp.  
RUSSIAN, mono, Antarktika. Doklady Komissii  
1967. Moscow 1969  
\*CFSTI TT 70-50088

Propagation of Seismic Waves In  
A Stratum and Their Interaction With  
A Structure, by A. P. Sinitsyn, 12 pp.  
RUSSIAN, rpt, Byulleten' Po Inzhenernoy  
Seysmologii, No 5, 1966, pp 45-56.  
AIR/FTD-HT-23-286-69

On Electrical Fields in the Earth's Magnetosphere,  
by B. A. Tverskoy,  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 188, No 3,  
1969, pp 575-578.  
\*Dept of Navy APL/JHU J-1483

Problems of Constructing a Coordinate System  
Referred to the Earth's Center of Mass and Axis  
of Rotation, by A. A. Izotov.  
RUSSIAN, per, Geodeziya i Kartografiya, Vol 14,  
No 9, 1969, pp 12-19.  
NASA TT F 13,005

Interpreting Airphotos of Different Tundra Types and the Characteristics of Their Patterned Ground, by V. N. Andreyev.  
RUSSIAN, per, Geograficheskiy Sbornik, No 7, 1955, pp 102-120.  
ACSI J-6353  
FSTC-HT-23-316-68

Pulsations of the Horizontal Components of the Velocity of Ocean Currents Owing to Large-Scale Turbulence, by V. B. Shtokman.  
RUSSIAN, per, IZV. AN SSSR, Ser Geograficheskaya i Geofizicheskaya, 1941, pp. 475-483.  
NRCC C-8342  
LTC 69-36806

Lateral Deformation Coefficient and Volume Deformations of Frozen Soils in the Creep Process, by Ye. P. Shusherina, 14 pp.  
RUSSIAN, per, Merzlotnyye Issledovaniya, No 4, 1966, pp 229-240.  
ACSI J-8001  
FSTC/HT-23-751-70

Problems of World Ocean Fisheries, by G. V. Martinsen, 9 pp.  
RUSSIAN, per, Okeanologiya, Moscow, Vol 9, No 6, Nov-Dec 1969, pp 1049-1055.  
JPRS 50077

"Hydrology of the Pacific Ocean", by A. D. Dobrovolsky  
RUSSIAN, bk, Tikhyy Okean, Gidrologiya Tikhogo Okeana, Moscow 1968, pp 1-552.  
Dept of Navy NOO Tr 35

On the Problem of Calculating the Higher Derivatives of the Gravity Potential, by M. A. Aleksidze and K. M. Kartvelishvili.  
RUSSIAN, per, Trudy A. N. Gruzin. SSR Inst. Geofiz., Vol 24, No 1, 1969, pp 97-110.  
ACIC TC-1576

On the Problem of Processing the Results of a Gravimetric Survey, by M. A. Aleksidze.  
RUSSIAN, per, Trudy A. N. Gruzin. SSR Inst. Geofiz., Vol 24, No 1, 1966, pp 157-168.  
ACIC TC-1577

Communities of Benthic Fauna in the Western Bering Sea, by Z. A. Filatova, N. G. Barsanova, 115 pp.  
RUSSIAN, per, Trudy Instituta Okeanologii, No 69, 1964, pp 6-97  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 8  
On Loan

Distribution of Benthic Fauna in the Western Bering Sea by Tropic Zones and Some General Problems of Tropic Zonation, by A. P. Kuznetsov, 99 pp.  
RUSSIAN, per, Trudy Instituta Okeanologii, No 69, 1964, pp 98-177.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 9  
On Loan

The Adjustment of an Astrogeodetic Net Model, by M. I. Yurkina and G. A. Aleksashina.  
RUSSIAN, per, Trudy Tsnyigaik, No 176, 1969, pp 88-97.  
ACIC TC-1585

The Problem of Allowing for the Effect of the Central Zone on the Value of Molodenskiys Corrections G1, by M. I. Yurkina and L. Ye. Kropotova.  
RUSSIAN, per, Trudy Tsnyigaik, No 176, 1969, pp 88-97.  
ACIC TC-1586

On the Computation of Plumbline Deflections and Quasigeoid Heights in Mountains, by L. P. Pellin.  
RUSSIAN, per, Trudy Tsnyigaik Issled. Po Geodes. Gravimet. i Teoriy Figury Zemli, No 176, 1969, pp 98-112.  
ACIC TC-1587

Biocoenoses and Biomass of Benthos of the Newfoundland-Labrador Region, by K. N. Nesis, 75 pp.  
RUSSIAN, per, Trudy VNIRO, No 57, 1965, pp 453-489.  
Dept of Interior  
BCF/OFF  
A-35/Jan 70/No 7  
On Loan

Experience with the Mining of Internal Layer IV With Sloping Strata using Hydraulic Washout of Coal and Hydraulic Packing of the Waste Area at the "Krasnogorskaya" Hydraulic Mine, by N. M. Yakovlev, R. P. Bolotov, 8 pp.  
RUSSIAN, per, Ugol, Vol 40, No 7, 1965, pp 31-34.  
AEC/ORNL-Tr-2271-70

Water Problems in Bahrain Islands Discussed, by  
Jalil al-'Urrayid, 5 pp.  
ARABIC, np, Al-Ahwa', Bahrain, 3 July 1969, p 4.  
JPRS 50037

Normal Mode Sound Field in a  
Negative Gradient Shallow Sea,  
by Jen-ho Chang, 12 pp.  
CHINESE, rpt, Sheng Hsueh Hsueh Pao,  
Vol 2, No 1, 1965, pp 23-27  
AIR EFD-HF-23-1138-68

High-Frequency Anchored Water Tank,  
by Wei-l Hsu, 3 pp.  
CHINESE, rpt, Sheng Hsueh Hsueh Pao,  
Vol 2, No 1, 1965, pp 34-38  
AIR EFD-HF-23-1138-68

Relation of the Accuracy of Salinity,  
Temperature and Depth Measurements of the  
Shallow Sea to the Calculation of Sea Water  
Density, by Ching Chen-hua, 8 pp.  
CHINESE, per, Ti-ch'iu Wu-li Hsueh-pao,  
Peking, Vol 4, No 1, Jun 1955, pp 25-31.  
JPRS 50012

Fourier Analysis and Compensation of Wobbling  
Errors of Semikinematic Theodolite Axes, by T. Farkas  
GERMAN, per, Allgem.-Vermess.-Nachricht., No 10,  
1968, pp 483-491.  
ACIC TC-1608

Development of USSR Coal Industry Described,  
by Vitaliy I. Popov, 6 pp.  
GERMAN, per, Bergbautechnik, Leipzig, No 11,  
Nov 1969, pp 561-563.  
JPRS 50080

Concerning Point Accuracy, by K. Friedrich,  
GERMAN, per, Zeitschrift fur Vermessungswesen,  
Vol 92, No 2 & 3, 1927, pp 33-41 & 65-79.  
ACIC TC-1590

General Error Tensor in a Priori and a Posteriori  
Correlations, by E. Grafarend,  
GERMAN, per, Zeitschrift fur Vermessungswesen,  
Vol 92, No 5, 1927, pp 157-159.  
ACIC TC-1591

Past, Future Petroleum Exploration Described,  
9 pp.  
POLISH, per, Nafta, Katowice, Jan 1970, pp 1-4.  
JPRS 50062

Land Use Planning Institute Activities, 12 pp.  
POLISH, per, Prace Geograficzne, Warsaw,  
Vol 6, 1969, pp 791-802.  
JPRS 50063

Division of Productive Agricultural Areas  
into Categories, Based on Natural Principles  
of Effective Land Utilization, by  
M. Strzemiński, 43 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 3-45.  
\*CFSTI TT 70-55064

Lithologic and Soil-Forming Regions of  
Kielcevoivodeship, by M. Strzemiński, 30 pp  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 53-82.  
\*CFSTI TT 70-55064

The Test and Methods of Large-Scale Land  
Classification Mapping, by T. Witek, 13 pp  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 99-115.  
\*CFSTI TT 70-55064

Geomorphology of the Swietokrzyskie Moun-  
tains (Holy Cross Mountains), by T. Klatka  
5 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 129-158.  
\*CFSTI TT 70-55064

Preliminary Investigations on the Physical  
Properties of Some Podzols, by B. Reimann  
8 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 181-188.  
\*CFSTI TT 70-55064

Content of Certain Trace Elements in Rend-  
zinas of the Kielce Region, by  
A. Kabata-Pendias, 10 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 251-260  
\*CFSTI TT 70-55064

Trace Elements Distribution in Sandy Soils  
of the Holy Cross Mts. Region, by  
A. Kabata-Pendias, 5pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV  
1965, pp. 261-265.  
\*CFSTI TT 70-55064

Trace Elements in Some Loess soils of the Opatow-Sandomierz Region, by M. Piotrowska 5 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 267-271.  
\*CFSTI TT 70-55064

The Soils of Moor Grass Meadows in the Light of Comparative analysis, by M. Grynia 6 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 459-464.  
\*CFSTI TT 70-55064

Content of Some Trace Elements in the Soils of Wielkopolska, by A. Czekalski, 8 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 273-280.  
\*CFSTI TT 70-55064.

Thermic conditions of the Periglacial Tundra in SW Spitsbergen, by Stanislaw Baranowski, 74 pp.  
POLISH, mono, Termika Tundry Peryglacjalnej SW Spitsbergen, 1968  
\*CFSTI TT 70-55061

Determination of Trace Elements in Soils Extracts by Additive Spectrographic Method by J. Glinski, 4 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 283-286.  
\*CFSTI TT 70-55064

Electronics & Electrical Engineering

Available manganese in some Soils of Kielce Voivodeship, by M. Ruszkowska, 4pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 337-340.  
\*CFSTI TT 70-55064

Detection and Analysis of Induced Emission in Argon Pinch Discharges, by A. N. Vasil'eva, et al. RUSSIAN, 1968, 64 pp.  
\*NASA TT-F-12,746

Soil Conditions of More Important of Moist Meadow Associations of a Middle Valley of the warta River, by J. Szoszkiewica, 5pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 375-379.  
\*CFSTI TT 70-55064

Concerning an Algorithm for Classifying Astronomical Images, by Tvalabeyshvili, G. A. 6 pp.  
RUSSIAN, per, AN Gruzssr. Soobshcheniya, Vol 6, No 2, 1968, pp 301-304  
AIR/FTD/MT-24-397-69

Secondary Transformations of the Soil and Plant Formerly Under Mining Exploitation, by B. Adamczyk, 6 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 437-442.  
\*CFSTI TT 70-55064

Classifying Devices With a Minium Mean Scan Time and the Decoding-Devices Proper for Optimum Variable-Length Codes, by D. A. Morik. 13 pp.  
RUSSIAN, rpt, AN SSSR. Otdeleniye Mekhaniki i Protseessov Upravleniya. Analiz i Sintez Avtomaticheskogo Upravleniya, 1968, pp 208-215  
AIR/FTD/MT-24-260-69

Subfossil Malacofauna as Indicator of Pedogenesis in Holocene, by A. Kowalkowski 6 pp.  
POLISH, per, Roczniki Gleboznawcze, vol XV 1965, pp. 443-448.  
\*CFSTI TT 70-55064

Experience in Using the "Dnieper" Computer and Prospects for the Development of Control Computers for Continuous Processes, by Malinovskiy, B. N. 10 pp.  
RUSSIAN, rpt, AN SSSR. Otdeleniye Mekhaniki i Protseessov Upravleniya. Perspektivy Primeneniya Vychislitel' Noy Tekhniki Dlya Upravleniya V Promyshlennosti i Transporte; Doklady i Soobshcheniya. 1968, pp 75-83.  
AIR/FTD/MT-24-254-69

**The Evaluation of the Reliability of Iterative General-Purpose Computer Systems, Considering Switchover Time** by V. G. Khoroshevskiy, 10 pp  
RUSSIAN, rpt, AN SSSR, Sibirskoye Otdeleniye, Institut Matematiki, Vychislitel'nyye Sistemy, 1967, pp 13-23  
AIR/FTD/MT-23-549-68

**Distribution of Functional Circuits in a Specified System of Modules**, by V. N. Lopato, 8 pp.

RUSSIAN, rpt, AN UKRSSR, Voprosy Proyektirovaniya i Ispol'zovaniya Elektronnykh Upravlyayushchikh Mashin, 1968, pp 74-80.  
AIR/FTD/MT-24-261-69

**Emerging of Microprogram Automata With Allowance for Properties of Real Elements**, by V. I. Kartashev, 16 pp.

RUSSIAN, rpt, AN UKRSSR, Voprosy Proyektirovaniya i Ispol'zovaniya Elektronnykh Upravlyayushchikh Mashin, 1968, pp 81-94  
AIR/FTD/MT-24-261-69

**System for Sampling and Processing of Information With UMShN "Dnieper" for Control of the Open-Hearth Process**, by Ye. I. Gubenko, 9 pp.

RUSSIAN, rpt, AN UKRSSR, Voprosy Proyektirovaniya i Ispol'zovaniya Elektronnykh Upravlyayushchikh Mashin, 1968, pp 160-167.  
AIR/FTD/MT-24-261-69

**Methods of Improving the Operational Reliability of Control Computers**, by N. I. Tsiklinskiy, A. I. Korolev, 35 pp.

RUSSIAN, per, Avtomaticheskoye Upravleniye i Vychislitel'naya Tekhnika, No 7, 1967, pp 206-235  
AIR/FTD/MT-23-230-69

**The Uns-20 Managerial Telephone Equipment** by D.M. Khayn, Stavrov, Ye. G. 3 pp  
RUSSIAN, per, Avtomatika Telemekhanika i Svyaz, No 8, 1969, pp 43-43,  
AIR/FTD/MT-23-648-69

**Wireless Transmission Lines (Excerpts)**, by A. M. Pokras, 44 pp.  
RUSSIAN, bk, Besprovodnyye Linii Peredachi, 1967, pp 72-84; 214-218; 237-248.  
AIR/FTD/MT-23-04-70

**Various Properties of Power Fuels Described**, by A. S. Gorshkov, G. I. Ivanova, 12 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, Moscow, No 1, 1970, pp 14-18.  
JPRS 59141

**Re-Representation of Electric Machine Schemes in a Form Suitable for Simulation**, by D. A. Avetisyan, A. I. Bertinov, 13 pp.  
RUSSIAN, per, Elektrichestvo, No 3, 1968, pp 23-27.  
AIR/FTD/MT-24-455-69

**A Tropospheric Radio Relay Communication Antenna** by B. S. Madenenko, 9 pp,  
RUSSIAN, per, Elektrosvyaz, No 4, 1969  
pp 14-21,  
AIR/FTD/MT-23-10-70

**GOST 13052-67. Group E60. Computers and Data-Transmission Equipment. Alphanumeric Codes**, 14 pp.  
RUSSIAN, rpt, GOST 13052-67 Group E 60.  
AIR/FTD/MT-23-652-69

**Measurement of Space-Time Structure of High Frequency Components of Wind Waves**, by K. V. Konyayev, A. A. Mazarov, 9 pp.  
RUSSIAN, per, Iz Ak Nauk, Fizika Atmosfery i Okeana, Moscow, Vol 6, No 1, 1970, pp 104-110.  
JPRS 49998

**Electron-Optical Multistable Devices**, by O. F. Men'shikh, 14 pp,  
RUSSIAN, per, IVUZ, Radioelektronika, Vol 11, No 9, 1968, pp 970-980.  
Dept of Navy NIC Trans 3021

**Single-Pulse Delay Line**, by L. K. Samoylov, 16 pp  
RUSSIAN, per, Kharkov, Institut Radioelektroniki. Radiotekhnika, No 6, 1968, pp 51-62.  
AIR/FTD/MT-23-333-69

**Input Language of a Computer with Magazine Memory**, by V. K. Smirnov, A. N. Myamlin, 20 pp.  
RUSSIAN, per, Kibernetika, No 6, 1967, pp 19-25.  
AIR/FTD/MT-24-411-69

**Appraisal of the Efficiency of one Method of Sorting on Digital Computer with Use of External Memory**, by V. S. Skarynkin, R. G. Strongin, 15 pp.  
RUSSIAN, per, Kibernetika, No 6, 1967, pp 73-78.  
AIR/FTD/MT-24-411-69

**Minimization of Testing During Synthesis of a Three-Stable Threshold Element**, by I. N. Bogolyubov, 6 pp.  
RUSSIAN, per, Kibernetika, No 6, 1967, pp 85-87.  
AIR/FTD/MT-24-411-69

Scientific  
Electronics - Electrical Engineering  
Contd

Information Transmission Theory, by R. L. Dobrushin,  
V. A. Germash, 31 pp.  
RUSSIAN, per, Kibernetika - Na Sluzhbu Kommunizmu,  
Vol 5, 1967, pp 70-86.  
AIR/FTD/MT-23-321-69

Laser Radars, by V. I. Petrovskiy,  
G. A. Rozhdayev, 73 pp.  
RUSSIAN, bk, Lakatory na Lazerkh, Moscow, 1969,  
104 pp.  
JPRS 50123

Multichannel Analogdigital Converter, by  
A. I. Kondalev, D. M. Kalnibolotskiy, 7 pp.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya  
Upravleniya, No 3, 1968, pp 32-34.  
AIR/FTD/MT-24-401-69

The Effect of Crossed Electrical and Magnetic  
Fields on the Aerodynamics and Thermal Regime of a  
Gas Flame Cone, by L. P. Yarin, 9 pp.  
RUSSIAN, per, Nauchno Tekhnicheskoye Obshchestvo  
Energeoticheskoy Promyshlennosti Tsentral'noye  
Pravleniye -- Sektsiya Gazifikatsiy -- Teoriya i  
Praktika Szhiganiya Gaza, Vol 3, 1967, pp 128-135.  
ACSI J-7686  
FSTC-MT-23-86-70

Persistent Memories of Digital Computers,  
7 pp.  
RUSSIAN, per, Postoyannyye Zapominayushchiye  
Ustroystva Tsifrovyykh Mashin, Leningrad,  
No 349, 1969, 95 pp.  
JPRS 49965

Session of Society of Radio Engineering,  
Electronics and Communications, by  
A. S. Popov, 8 pp.  
RUSSIAN, per, Radiotekhnika, Moscow, Vol 24,  
No 12, Dec 1969, pp 108-111.  
JPRS 50063

Geographic Coordinate Recoring System With Auto-  
matic Adjustment for Navigational Corrections,  
by P. S. Davydov, V. O. Ushnyshev, 7 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, No 5, 1968,  
pp 84-87.  
AIR/FTD/MT-23-336-69

Scientific  
Electronics - Electrical Engineering  
Contd

Operating Range of Hydroacoustic Fish Locators, by  
K. I. Yudanov, 5 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 45, No 9,  
1969, pp 35-37.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 12  
On Loan

Utilization of Ultrahigh Frequencies for Fishery  
Products Technology, by N. N. Sakharova,  
Ye. V. Mozhayev, 5 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 45, No 10,  
1969, pp 57-59.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 166  
On Loan

Manipulation System for Input of Inquiries in  
Simplified Russian Language into a Computer, by  
V. N. Afanas'yev, A. I. Kolin'ko, 20 pp.  
RUSSIAN, per, Seminar "Informatsionn-  
Upravlyayushchiye Sistemy" Doklady, No 2, 1967,  
pp 81-101.  
AIR/FTD/MT-24-406-69

Transformer-Type High-Current Accelerator,  
by Ye. A. Abramyan, V. A. Gaponov, 16 pp.  
RUSSIAN, mono, Sil'notochnyy Uskoritel'na Osnove,  
Transformatora, Novosibirsk, 1966, 21 pp.  
JPRS 50119

Tracking Systems with Optical Couplings, by  
M. V. Yefimov, 16 pp.  
RUSSIAN, bk, Sledyashchiye Sistemy s Opticheskimi  
Svyazyami, Moscow, No 358, 1969.  
JPRS 50109

Resolution Theory for an Ideal Pickup Tube, by  
B. V. Titkov, 14 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 12, 1967, pp 37-41.  
AIR/FTD/MT-23-349-69

Resolution of Narrow Band Small Frame Television  
Systems, by V. I. Konchin, L. I. Khromov, 10 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya, No 1,  
1968, pp 43-46.  
AIR/FTD/MT-24-03-70

Light Regime Regulation of Tubes During  
Telecine-Projection, by A. V. Vykhodets. 15 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 3, 1968, pp 38-44.  
AIR/FTD/MT-24-338-69

Longitudinal and Transverse Characteristics of  
a Tube With Accumulation, by L. L. Polosin,  
V. P. Sidorkin. 5 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 3, 1968, pp 58-59.  
AIR/FTD/MT-24-338-69

At Television Centers, by A. L. Levin. 5 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 3, 1968, pp 68-69.  
AIR/FTD/MT-24-338-69

The Automatic Optical Focusing of a Television  
Camera, by A. M. Afanas'yev, V. A. Ivanov. 13 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 4, 1968, pp 33-38.  
AIR/FTD/MT-23-348-69

The Influence of the Operating Mode of a Vidicon  
on its Resolving Power, by M. S. Samarin,  
Sh. Z. Tadzhibayev. 8 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 4, 1968, pp 39-42.  
AIR/FTD/MT-23-348-69

KI-90 Television Camera for Transmitting Movie  
Films, by R. S. Kharchukyan. 16 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 5, 1968, pp 9-16.  
AIR/FTD/MT-23-350-69

The Secon, a New Class of TV Camera Tube, by  
N. Ya. Venediktov, I. K. Malakhov. 20 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 7, 1968, pp 72-78.  
AIR/FTD/MT-23-346-69

LI-405 in a Regime of Pulse Illuminations, by  
N. L. Artem'yev. 5 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 10, 1968, pp 45-46.  
AIR/FTD/MT-24-342-69

The Organization for Showing the Winter Olympic  
Games From Grenoble on Television, by  
A. M. Barbarskiy. 19 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 11, 1968, pp 47-54.  
AIR/FTD/MT-24-342-69

Certain Peculiarities of Filming Movie Materials  
for Television, by V. P. Kontarev. 10 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 10, 1968, pp 55-57.  
AIR/FTD/MT-24-342-69

Standardization and Normalization, by  
F. S. Novick. 12 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 10, 1968, pp 58-61.  
AIR/FTD/MT-24-342-69

A Mobile Television Installation, by  
S. I. Katayev, Yu. S. Anfinov, et al. 21 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 1, 1969, pp 39-48.  
AIR/FTD/MT-24-346-69

Memory Device on Vidicon, by G. A. Avanesov,  
A. G. Lapuk, et al. 12 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya, No 2  
1969, pp 48-52.  
AIR/FTD/MT-24-04-70

Ultra Miniature Vidicon Electron Gun, by  
T. M. Sokolova. 2 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 2, 1969, pp 54  
AIR/FTD/MT-24-04-70

Use of Lasers in Television, by  
D. I. Arkad'yev, B. M. Milinkis. 14 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 5, 1969, pp 52-57.  
AIR/FTD/MT-24-350-69

Light and Potential Characteristics of Image  
Orthicons, by P. L. Sokolov, B. V. Krusser.  
12 pp.  
RUSSIAN, per, Tekhnika Kino i Televideniya,  
No 5, 1969, pp 58-62.  
AIR/FTD/MT-24-350-69

Short Characteristic of Basic Units, Their  
Composition, and Requirements Set for Electronic  
Computers, by N. I. Fadeyev. 30 pp.  
RUSSIAN, rpt, Tekhnologiya Proizvodstva Uvely-  
Elektronnykh Vychislitel'nykh Mashin, 1-67,  
pp 5-30.  
AIR/FTD/MT-24-233-63

Transistorized Dynamic Elements in Digital  
Computers, by A. G. Filippov, 11 pp.  
RUSSIAN, bk, Tranzistornyye Dinamicheskiye  
Elementy Tsifrovyykh Vychislitel'nykh Mashin,  
Moscow, 1969, pp 1-4; 157-162.  
JPRS 50180

Set of Units for Constructing Analog Computers,  
by Ye. S. Kozlov, 13 pp.  
RUSSIAN, per, Trudy Seminara Seminar po Metodam  
Matematicheskogo Modelirovaniya i Teorii Elektricheskikh Tspey. Matematicheskoye Modelirovaniye  
i Elektricheskoye Tspey, 1967, No. 3, pp 230-231.  
AIR/FTD/MT-24-402-69

Analog-To-Digital Computer Complex Based on the  
"Dnepr" Computer, by M. D. Venttsel', V. K. Filosofov  
5 pp.  
RUSSIAN, rpt, Trudy Seminar: Upravlyayushchiye  
Mashiny i Sistemy, 1968, pp 38-42.  
AIR/FTD/MT-24-403-69

An Experiment of Creation on an Information  
Retrieval Language on Computer Engineering, by  
V. K. Vakhobov, A. A. Mikhaylova, 9 pp.  
RUSSIAN, rpt, Trudy Vsesoyuznaya Konferentsiya Po  
Informatsionno-Poiskovym Sistemam i  
Avtomatizirovannoy Obrabotke Nauchno-Tekhnicheskoy  
Informatsiy, 3d Moscow, 1966, 1967, pp 156-161.  
AIR/FTD/MT-24-409-69

Organizing an Information System Based on the  
"Dnepr" Computer, by A. O. Nikitin, G. Ya. Mashbits,  
7 pp.  
RUSSIAN, rpt, Trudy Vsesoyuznaya Konferentsiya Po  
Informatsionno-Poiskovym Sistemam i Avtomatizirovannoy  
Obrabotke Nauchno-Tekhnicheskoy Informatsiy, 3d  
Moscow, 1966, 1967, pp 203-206.  
AIR/FTD/MT-24-410-69

New Logic Elements for Information-Computer  
Systems, by G. I. Dmitrakova, 10 pp.  
RUSSIAN, rpt, Trudy Vsesoyuznaya Konferentsiya Po  
Informatsionno-Poiskovym Sistemam i  
Avtomatizirovannoy Obrabotke Nauchno-Tekhnicheskoy  
Informatsiy, 3d Moscow, 1966, 1967, pp 245-251.  
AIR/FTD/MT-24-197-69

An Automatic Device for Reading Typographical  
Texts, by V. S. Katinskiy, B. D. Tikhomirov,  
13 pp.  
RUSSIAN, per, Trudy Vsesoyuznaya Konferentsiya  
po Informatsionno-Poiskovym Sistemam i Avto-  
matizirovannoy Obrabotke Nauchno-Tekhnicheskoy  
Informatsiy, 3d, Moscow, 1966, 1967, pp 29-36  
AIR/FTD/MT-24-227-69

Positions of Plaice on a Solid Surface Determined  
by Means of a Photoelectronic Circuit, by  
V. G. Karius.  
RUSSIAN, per, Trudy VNIKO, No 59, 1966, pp 177-183.  
\*Dept of Interior  
BCF/OFF

Increasing the Sensitivity of an Aerological  
Radar Receiver, by A. G. Gorelik,  
V. V. Kostarev, 11 pp.  
RUSSIAN, per, Trudy Vsesoyuznogo Nauchnogo  
Meteorologicheskogo Soveshchaniya, Leningrad,  
1963, pp 145-153.  
JPRS 50189

Fundamentals of System Design for Magnetic  
Decision Elements, by M. A. Rozenblat,  
M. A. Boyarchenkov, et al. 26 pp.

RUSSIAN, rpt, Trudy Vsesoyuznogo Soveshchaniya  
po Avtomaticheskomy Upravleniyu (Tekhnicheskoy  
Kibernetike), 3d Odessa, 1965. Tekhnicheskoye  
Sredstva Avtomatiki, 1967, pp 35-52.  
AIR/FTD/MT-24-217-69

A Method of Calculating the Current Distribution  
in a System of Linear Dipoles and the Radiation  
Pattern in Such a System, by A. W. Tkhnov, 5 pp.  
RUSSIAN, per, Universitetskiy Vychislitel'nyy  
Tsentr -- Sbornik Rabot -- Vychislitel'nyye Metody  
i Programirovaniye, No 10, 1968, pp 3-8.  
ACSI J-7683  
FSTC-HT-23-261-70

The Reconstruction of the Meda 80 T Computer on  
a Program-Controlled Analog Computer, by H. Adler,  
G. Neidhold, 9 pp.  
CZECH, per, Automatizace, Vol 11, No 6, 1968,  
pp 174-176.  
AIR/FTD/HT-23-518-69

Comparison Between Air Preheating Flue-Gas  
Recycling and their Combinations, Especially  
for Steam Generators, by M. Veron,  
FRENCH, per, Bull Tech Soc Franc de Constr.,  
Vol 22, No 8, Aug 1969, pp 43-47.  
MLL Ref: 9022.39 (5187)

Requirements for the Protection of Three-Phase  
Induction Motors Against Overloading,  
by H. Wichboldt,  
GERMAN, per, PTB Mitt., Vol 79, No 2, 1969,  
pp 84-88.  
MLL Ref: 8313.4 (5755)



**Diffusion Between Two Semi-Infinite Media With a Volume Change**, by F. Sauer, 11 pp.  
GERMAN, per, Zeitschrift fur Elektrochemie  
66, 1962, pp. 353-363.  
\*CFSTI TT 70-58096  
AVAILABLE FROM NBS ONLY

**Electrical Conductivity Measurements in AgI structure**, by W. Riemann, et al.  
3 pp.  
GERMAN, per, Zeitschrift fur Physik Chemie Neue Folge, 25, 1969, pp. 139-141  
\*CFSTI TT 70-58073  
AVAILABLE FROM NBS ONLY

**Mav's Electronic Data Processing System Described**, by Andras Fekete, 8 pp.  
HUNGARIAN, per, Vasut, Budapest, Jan 1970,  
pp 5-7.  
JPRS 50082

**2nd Programming Course on the Applications of Electronic Computers in Biology and Medicine**, Sept 16-Dec 14, 1968. Part VIII: Statistical Methods in Biology and Medicine. I.  
ITALIAN, rpt, 2° Corso de Programmazione, Orientato Verso le Applicazioni del Calcolatori Elettronici all Biologia e alla Medicina, 16 Settembre-14 Dicembre 1968. Parte VIII: Metodi Statistici in Biologia e Medicina. I., 25 Jan 1969.  
\*ACSI J-8224  
ID 2204006370

**Electronics and Tele-Communications in the Light of the Requirements of the National Economy and Culture and also of the National Defense** by S. Ryzko, 3 pp  
POLISH, per, Przegląd Telekomunikacyjny  
Vol 41 No 2, 1969,  
pp 38-39  
AIR/FTD/HT-23-649-69

**Computers Required for synthesis and Analysis of Pedologic and Cartographic Documentation**, by R. Truszkowska, 7 pp.  
POLISH, per, Roczniki Glebnawcze, vol XV 1965, pp. 469-475.  
\*CFSTI TT 70-55064

**Electrification of Railroads Reviewed**, by George Turbutin, Nicolae Condacse, 11 pp.  
ROMANIAN, per, Revista Cailor Ferate, Bucharest, No 1, Jan 1970, pp 1-8, 13.  
JPRS 50164

**Status and Trends in the Development of Thermionic Converters**, by In. A. Danilov, S. V. Larchnikov, 12 pp.  
RUSSIAN, per, Atomnaya Energiya, Moscow, Vol 2, No 1, Jan 1970, pp 33-37.  
JPRS 50142

**Efficiency of Utilization of Secondary Power Resources**, by A. Kutyev, 10 pp.  
RUSSIAN, per, Ekonomika Sovetskoy Khraniny, Kiev, No 9, 1969, pp 72-76.  
JPRS 50016

**Power Coefficient of 800 KWT Turbogenerators**, by A. E. Krikunchik, 15 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, Moscow, No 12, 1969, pp 59-74.  
JPRS 49967

**Specific Coal Characteristics Upgrade Output**, by N. L. Isel'gor, I. I. Volkov, 7 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, Moscow, No 1, 1970, pp 18-21.  
JPRS 50141

**Advances in Turbogenerator, Hydrogenerator Building Noted**, by A. Ye. Alekseyev, 10 pp.  
RUSSIAN, per, Elektrichestvo, Moscow, No 2, 1970, pp 1-5.  
JPRS 50128

**Insulation Levels for 250 KV A. C. Equipment Described**, by A. V. Sapozhnikov, 6 pp.  
RUSSIAN, per, Elektrichestvo, Moscow, No 2, 1970, pp 61-63.  
JPRS 50128

**Test Data on 500-Megawatt Turbogenerators Given**, by V. S. Bovichko, 11 pp.  
RUSSIAN, per, Elektrotehnika, Moscow, No 1, 1970, pp 2-6.  
JPRS 50128

**Oil-Water-Cooled TMA-300 Turbogenerator Described**, by I. P. Gnedin, Ya. B. Danilovich, 7 pp.  
RUSSIAN, per, Elektrotehnika, Moscow, No 1, 1970, pp 6-8.  
JPRS 50128

**Standards Change as Turbogenerators Improve**, by G. S. Plis, 10 pp.  
RUSSIAN, per, Elektrotehnika, Moscow, No 1, 1970, pp 9-12.  
JPRS 50128

Soviet Heat Supply Balance Expected to Change,  
1970.  
RUSSIAN, per, Energetik, Moscow, No 10, 1969,  
pp 34-37.  
JPRS 50047

Hydroelectric Power Station Problems Discussed,  
by P. G. Kumshtashvili, 6 pp.  
RUSSIAN, per, Energetik, Moscow, No 12,  
1969, pp 5-8.  
JPRS 50016

Firing Boiler for 300 MW Units Described,  
by Yu. V. Pavliv, 7 pp.  
RUSSIAN, per, Energetik, Moscow, No 12,  
1969, pp 9-11.  
JPRS 50016

300 MW Unit Reconstruction, Overhaul Completed,  
by V. A. Braginskiy, A. I. Gerashchenko, 8 pp.  
RUSSIAN, per, Energetika i Elektrifikatsiya,  
Kiev, No 6, 1969, pp 10-14.  
JPRS 49962

Experiment in Experimental Adjustment of Gas  
Turbine Assembly GT-6-750 TmZ on Plant Stand,  
by M. M. Kovalevskiy, B. S. Revzin, et al. 15 pp.  
RUSSIAN, per, Energomashinostroyeniye, No 11,  
1965, pp 40-44.  
AIR/FTD/TM-24-146-69

Development in Boiler Engineering Discussed, by  
Ye. A. Fadeyev, A. U. Lipets, 18 pp.  
RUSSIAN, per, Energomashinostroyeniye, Leningrad,  
No 11, 1969, pp 10-13.  
JPRS 49914

Problems of Turbine Fire Safety Discussed,  
2 pp.  
RUSSIAN, per, Energomashinostroyeniye,  
Leningrad, No 12, 1969, pp 42-44.  
JPRS 50002

Operation of United Power System Discussed,  
by Yu. N. Astakhov, V. A. Venikov, 21 pp.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR,  
Energetika i Transport, Moscow, No 6, 1969,  
pp 7-15.  
JPRS 49942

Management Factors of United Power System  
Cited, by Yu. N. Astakhov, V. A. Venikov,  
14 pp.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR,  
Energetika i Transport, Moscow, No 6, 1969,  
pp 17-22.  
JPRS 49962

General Method for Determining the Optimal  
Turbine Parameters with Low Volume Flow, by  
O. N. Yenin, et al.  
RUSSIAN, per, Izvestiya VUZ Aviatsionnaya  
Tekhnika, No 1, 1969, pp 70-76.  
NASA TT F 12,980

Search for Efficient Fuel-Power Balance  
Described, by Sh. Chokin, 6 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana,  
Alma-Ata, No 11, 1969, pp 49-52.  
JPRS 50184

Technical Progress in Power Engineering,  
7 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya,  
Moscow, 6 Feb 1970, p 3.  
JPRS 50184

Powerful New Boilers Designed at Podolsk  
Plant, by V. K. Birn, 19 pp.  
RUSSIAN, per, Teploenergetika, Moscow, No 1,  
1970, pp 4-11.  
JPRS 50128

Development of Electric Power Discussed,  
by A. A. Kanayev, 9 pp.  
RUSSIAN, per, Vestnik Mashinostroyeniya,  
Moscow, No 12, 1969, pp 3-6.  
JPRS 50047

Apparatus for Studying the Heat Resistance of  
Turbine Blades Under Conditions of Simultaneous  
Thermal and Mechanical Loading, by  
A. P. Voloshchenko, 7 pp.  
RUSSIAN, bk, Vsesoyuznoye Nauchno-Tekhnicheskoye  
Soveshchaniye po Voprosam Prochnosti Materialov  
i Konstruktivnykh Elementov pri Vysokikh Temper-  
aturakh, 4th, Kiev, Termoprochnost' Materialov  
i Konstruktivnykh Elementov Materialov, 1967,  
pp 448-454.  
AIR/FTD/TM-23-12-69

Potential Power Sources in Slovakia Analyzed,  
by K. Hudec, 6 pp.  
Czech, per, Energetik, Prague, 22 Jan 1970, pp 3,4.  
JPRS 49931

Development of Power Plant Construction Traceol,  
by Guenther Schmidt, 12 pp.  
GERMAN, per, Bauplanung-Bautechnik, East Berlin,  
Dec 1969, pp 582-586.  
JPRS 49931

Design, Construction of Lippendorf Power Plant,  
by Hans-Joachim Klobe, Guenther Schmidt, 6 pp.  
GERMAN, per, Bauplanung-Bautechnik, East Berlin,  
Dec 1969, pp 590-592.  
JPRS 49931

Ways to Decrease Wear on p/t/n Steam Generators,  
by D. Rautke,  
GERMAN, per, Energietechnik, Vol 18, No 3, 1968,  
pp 303-304.  
\*RISI 2130

Fuel and Power Development up to 1985 Discussed,  
by Javanka Brdic, 24 pp.  
SERBO-CROATIAN, per, gorba (Reflektor), Belgrade,  
4 Feb 1970, pp 16-22.  
JPRS 50042

#### Materials

Antifriction and Antiwear Additives on the Basis  
of Products From the Reaction of Alkyl and  
Aryl Ethers of Glycerol  $\alpha$ -Monochlorohydrin  
and  $\beta$ -Chlorethyl Ether of Phosphorous Acid  
Dichloride, by A. M. Kuliyeu, Z. A. Alizadye  
5 pp.  
RUSSIAN, rpt, AN AZERBSSR. Institut Khimii  
Prisadok. Prisadki k Smazochnym Maslam; Voprosy  
Sinteza, Issledovaniya i Primeneniya Prisadok  
k Maslam; Toplivam i Polimernym Materialam,  
1967, pp 80-83.  
AIR/FTD/MT-24-289-69

Effect of Temperature on the Friction  
Properties of Plastics, by A.I. Yel'kin,  
V.N. Nikolayev, 9 pp.  
RUSSIAN, report, AN SSSR. Nauchnyy  
Sovet Po Treniyu i Smazkam, 1968,  
pp 116-121  
AIR/FTD-HT-23-166-69

Study of the Structure of Contact  
Spots, by N.B. Demin, V.V. Lantov,  
6 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, 1968, pp 151-157.  
AIR/FTD-HT-23-166-69

Investigation of Surface Geometry,  
by V.V. Marochkin, 18 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, Voprosy Treniya  
i Problemy Smazki, 1968, pp 161-172  
AIR/FTD-HT-23-166-69

Dispersion Medium and the Properties  
of Silica Gel Plastic Greases, by  
V.V. Sinitsyn, M.B. Bakaleynikov,  
14 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, 1968, pp 179-187.  
AIR/FTD-HT-23-166-69

Resistance of Consistent Lubricants  
to Rotation of Large Anti-Friction  
Bearings at Low Temperatures, by  
I.G. Tsurkan, E.V. Motovilov, 9 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, 1968, pp 185-192  
AIR/FTD-HT-23-166-69

Solid Lubricant Coatings For  
Titanium, by L.N. Sentyurikhina,  
Z.S. Rubtsova, 8 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, 1968, pp 193-197  
AIR/FTD-HT-23-166-69

Investigation of the State of an  
Oil Film During Reciprocating Sliding  
Friction, by M.M. Snitkovskiy, I. I.  
Silayev, 7 pp.  
RUSSIAN, rpt, AN SSSR. Nauchnyy  
Po Treniyu i Smazkam, 1968, pp 197-201  
AIR/FTD-HT-23-166-69

The Change of Internal Energy During High  
Elastic Deformation of Polyurethanes, by  
Yu. S. Lipatov, O. V. Sereda, et al. 1 pp.  
RUSSIAN, rpt, AN UKRSSR. Sintez i Fiziko-  
Khimiya Polimerov; Poliuretany, 1969, pp 1-11  
AIR/FTD/MT-24-151-69

Scientific  
Materials Council

Investigation of Wear Resistance of Aluminum Alloys V95, VAD23, and D16, by O. Ye. Kestner, S. I. Spektorova, et al. 6 pp.  
RUSSIAN, per. Alyuminiyovyye Splavy, No 5, 1968, pp 176-180.  
AIR/FTD/MT-24-282-69

Investigation of the Action of Organic Acids on the Oxidizability of Mineral Oils by the Chemiluminescence Method, by F. G. Suleymanova, G. G. Gurylev, et al. 7 pp.  
RUSSIAN, per. Azerbaydzhanskoye Neftyanoye Khozaystvo, Vol 47, No 6, 1968, pp 37-39  
AIR/FTD/MT-24-269-69

Petroleum Fields of Tyumenskaya Oblast, by B. Ye. Shcherbina, 14 pp.  
RUSSIAN, per. Ekonomicheskaya Gazeta, Moscow, No 6, Feb 1970, pp 5-6.  
JPRS 50155

A New Magnetic Alloy with Reduced Nickel Content, by V. M. Kuznetsov,  
RUSSIAN, per. Elektrotehnika, No 6, 1966, pp 38-41.  
ALL Ref: 9022.401 (740-310)

Contemporary Filtering Materials for Purification of Fuels, Oils, Air and Hydraulic Fluids, by S. A. Puzyrev, G. P. Kuchin, et al. 7 pp.  
RUSSIAN, per. Energomashinostroyeniye, No 11, 1968, pp 40-42.  
AIR/FTD/MT-24-274-69

The Hardening of a Transition Class of Steel by Deformation at Negative Temperatures, by Galov, A. G.; Prokoshkin, D. A. 10 pp.  
RUSSIAN, per. Fizika i Khimiya Obrabotki Materialov, No 2, 1969, pp 80-91.  
AIR FTD/MT-24-310-69

Corrosion-Fatigue Strength of the Steels Used to Manufacture Ship Propeller Shafts, by G. V. Karpenko, G. N. Filimonov, 9 pp.  
RUSSIAN, per. Fiziko Khimicheskaya Mekhanika Materialov, Vol 4, No 6, 1968, pp 627-633.  
Dept of Navy NIC Trans 3012

Research on the Relationship Between Dimensions and Weight in Rolled Steel Production, by K. Papazyan and A. Dyankov,  
RUSSIAN, per. Godishn Vyssh Mash Elektrot Inst I. Mashinostr., Vol 20, 1967, pp 129-134.  
\*BISI 7611

Scientific  
Materials Council

Use of Superheated Steam for the Sintering of Fine Iron Ore Concentrates, by A. A. Kostarev,  
RUSSIAN, per. Dokl. Zn., Vol 145, No 7, 1969.  
\*BISI 7317

The Method of Calculating Optimum Rolling Conditions on Reversing Mills, Using Variation Curves, by N. I. Baimov,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 10, 1967, pp 66-72.  
\*BISI 7330

On the Influence of Dimensions and Weight of Ingots on the Productivity of a Blooming Mill, by N. I. Baimov,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 1, 1968, pp 89-91.  
BISI 7167

The Influence of Preheated Air on the Indices of the Temperature Heat Conditions of the Sintering Process, by G. A. Sokolov, I. I. Gul'tyal.  
RUSSIAN, per. Izv. VUZ Chern. Met., No 10, 1968, pp 22-25.  
BISI 7410

The Development of an Economic-Mathematical Model of the Evolution of the Fuel Economy of the Iron and Steel Industry, by A. A. Korlov, et al.,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 11, 1968, pp 177-181.  
\*BISI 8176

Internal Stresses Around Non-Metallic Inclusions in Steel, by Yu. V. Ordina, et al.,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 2, 1969.  
\*BISI 8156

A Rational Method of Blast Furnace Stove Operation, by V. S. Mocho, et al.,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 3, 1969.  
BISI 7884

On the Problem of Sinter Fuel Particle Size, by G. G. Efimenko, et al.,  
RUSSIAN, per. Izv. VUZ Chern. Met., No 4, 1969, pp 23-26.  
BISI 7648

The Problem of Production Method During the Reduction Period in Electric Furnaces, by D. Ya. Povolotskiy, et al., RUSSIAN, per, Izv. VUZ Chern. Met., No 4, 1969, pp 56-60.  
BISI 7649

The Relationship between Work Function and the Physical Properties of Some Transition Metals, by G. V. Samsonov, et al. 5 pp.  
RUSSIAN, per, Izv. VUZ Fiz., No 6, 1968, pp 103-105.  
NASA TT F-12,737

An Investigation of Hydroabrasive Wear of Alloys at the Kharkov Polytechnical Institute Installation, by V. V. Gavranek, A. G. Seleznev, et al 8 pp.  
RUSSIAN, rpt, Kavitatsiya i Gidroshlifuyushchaya Stoykost' Metallov v Gidravlicheskih Turbinakh, 1965, pp 105-110.  
AIR/FTD/AT-24-267-69

Certain Characteristics of Wear of Operating Elements of Hydroturbines, by Kh. S. Makoyev. 8 pp.  
RUSSIAN, rpt, Kavitatsiya i Gidroshlifuyushchaya Stoykost' Metallov v Gidravlicheskih Turbinakh, 1965, pp 115-119.  
AIR/FTD/AT-24-267-69

Estimation of Abrading Ability of Deposits, by V. B. Dul'nev, B. Ye. Vedeneyev. 8 pp.  
RUSSIAN, rpt, Kavitatsiya i Gidroshlifuyushchaya Stoykost' Metallov v Gidravlicheskih Turbinakh, 1965, pp 120-125.  
AIR/FTD/AT-24-267-69

Heat-Resistant Fibrous Materials, by L. I. Bobrov. 17 pp.  
RUSSIAN, per, Khimicheskiye Volokna, No 3, 1968 pp 71-75.  
AIR/FTD/HT-23-490-69

Modification of Synthetic Fibers, by A. A. Konkin, 10 pp.  
RUSSIAN, per, Khimicheskiye Volokna, Vol 11, No 1, 1969, pp 7-9.  
ARM/FSTC/HT-23-453-70

Research on Creep and on the Strength of Non-uniformly Heated Turbine Disks of Alloys, EI-437B and EI-787, by I. I. Ostanchuk, A. F. Pronkin, et al. 12 pp.  
RUSSIAN, per, Mashinovedeniya, No 3, 1968, pp 70-76.  
AIR/FTD/AT-24-333-69

Investigation of the Process of the Formation of the Surface of a Metal in the Process of its Reduction in the Electric Furnace, by D. Ya. Povolotskiy, et al. 5 pp.  
RUSSIAN, per, Izv. VUZ Chern. Met., No 4, 1969, pp 56-60.  
BISI 7649

Investigation of the Process of the Formation of the Surface of a Metal in the Process of its Reduction in the Electric Furnace, by D. Ya. Povolotskiy, et al. 5 pp.  
RUSSIAN, per, Izv. VUZ Chern. Met., No 4, 1969, pp 56-60.  
BISI 7649

Laminar Boundary Layer in a Compressed Gas at a Given Surface Temperature and in the Presence of Suction, by L. F. Kozlov.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 7, 1969, pp 93-98.  
\*NASA TT F 12,965

The Origin of Gold in Certain Old Conglomerates, by V.S. Trofimov  
RUSSIAN, mono, Problema Metallonoznosti Drevnikh Vonglomeratov Na Territoriy, 1969, pp. 58-63  
ETC-69-36812  
NRCC C-8349

Complex Study of the Basic Stages of Structural Damage in the Fatigue of Certain Ferrous Alloys, by B. I. Kostetskiy, V. V. Shevelya, et al. 8 pp.  
RUSSIAN, rpt, Prochnost' Metallov pri Tsiklicheskih Nagruzkakh. Materialy Soveshchaniya po Ustalosti Metallov 4th, 1966, 1967, pp 82-87.  
AIR/FTD/HT-23-314-69

Microbiological Corrosion of Protective Structures, by V. P. Khomenko, 6 pp.  
RUSSIAN, per, Promyshlennoye Stroitel'stvo, No 9, 1969, pp 41-43.  
ARM/FSTC/HT-23-577-70

Universal Apparatus For Determining the Dynamic Characteristics of Polymers During Pure Bending and Torsion, by S.K. Abramov, I.V. Viktorov, 7 pp.  
RUSSIAN, rpt, Rostovskiy Institut Inzhenerov Zhелеzno-Dorozhnogo Transporta, rpt, No 69, 1967, pp 87-91.  
AIR/FTD-HT-23-99-69

Scientific  
Materials (Cont'd)

Hot Impulsive Deformation of Low  
Carbon Steel, by P. P. Kochetov,  
S. A. Poltarushnikov, 8 pp.  
RUSSIAN, rpt, Samoletostroyeniye i  
Tekhnika Vozdushnogo Flota, No 10,  
1967, pp 110-115  
AIR/FTD-HT-23-316-69

Operation of Berezniki Potassium Combine Described,  
by A. Tikhomirov, 5 pp.  
RUSSIAN, per, Sotsialisticheskaya Industriya,  
Moscow, 16 Dec 1969, p 1.  
JPRS 49915

Determination of Stopping the Blow in the Case  
of Bessemer Converters, by K. S. Garger and  
V. D. Umanov,  
RUSSIAN, per, Stal., Vol 15, No 10, 1955, pp 905-909.  
\*BISI 6175

New Methods Called for in Mineral Industry, by  
A. I. Dain, 6 pp.  
RUSSIAN, per, Stroitel'nyye Materialy, Moscow,  
No 11, 1969, pp 5-6.  
JPRS 49921

Phenomenological Bases of Airtightness of  
Reinforced Polymers, by Tsyplakov, O. G. 10 pp.  
RUSSIAN, per, Sudostroyeniye, No 2, 1966, pp 48-61.  
AIR FTD/MT-24-292-69

Long-Range World Fiber Production Predicted,  
by I. Ye. Krichevskiy, 5 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost', Moscow,  
No 10, Oct 1969, pp 9-11.  
JPRS 49955

Laser Interferometry of Partially Ionized Plasma,  
by L. N. Pyatnitskiy, et al. 5 pp.  
RUSSIAN, per, Teplofiz. Vysokikh Temperatur, Vol 7,  
No 4, 1969, pp 780-781.  
NASA TT F-12,769

Thermal Decomposition of Silver Selenite in  
Contact With Sodium Carbonate, by S. F. Akhmetov  
Ye. A. Buketov, et al. 20 pp.  
RUSSIAN, per, Trudy AN KazSSR. Khimiko-Metal-  
lurgicheskii Institut, Vol 4, 1967, pp 20-36.  
AIR/FTD/MT-24-296-69

Towards the Problem of the Vacuum Degassing of  
Electrical Steel, by P. Ya. Sorokin, et al.,  
RUSSIAN, per, Trudy Ak. Na. SSSR, Ural'sk. Fil.  
Inst. Met., No 2, 1955, pp 67-72.  
\*BISI 6175

Scientific  
Materials (Cont'd)

Technological Properties of Glass-Base  
Lubricants Used in Extrusion, by V. E. Vdovin  
11 pp.  
RUSSIAN, per, Trudy Inzhenerov. Metallur-  
gicheskii Institut. Nauchnyye, No 23, 1967,  
pp 270-277  
AIR/FTD/MT-24-316-69

Aluminum-Zinc Phase Diagram, by A.A. Presnyakov,  
RUSSIAN, per, Trudy Inst. Yadern. Fiz. Ak. N.  
SSSR, Vol 4, 1961, pp 5-24.  
\*BISI 6134

Investigation of the Physico-Chemical Properties  
of Glass-Fibre-Reinforced Cement, by V. P. Serbin,  
RUSSIAN, per, Trudy Kiev. Politekh. Inst., Vol 43,  
1963, pp 30-41.  
\*BISI 6175

Glass-Fibre-Reinforced Cement and its Different  
Varieties, by V. P. Serbin,  
RUSSIAN, per, Trudy Kiev. Politekh. Inst., Vol 43,  
1963, pp 42-46.  
\*BISI 6175

Effect of Cutting Fluids on Residual Stresses  
During Face Milling of Heat-Resistant Alloy EL-37B,  
by Zaytsev, V. M. ; Kononov, V. K. 5 pp.  
RUSSIAN, per, Trudy Kuybyshev. Aviatsonnyy  
Institut, No 2, 1967, pp 207-210.  
AIR/FTD/MT-24-265-69

Development and Investigation of Cast Heat-  
Resistant Steel PZh1 for Working Temperatures  
of 600-750°C, by K. P. Lebedev, Ya. L. Gintsburg,  
et al. 19 pp.  
RUSSIAN, per, Trudy Leningrad. Politekhicheskii  
Institut, No 295, 1968, pp 45-56.  
AIR/FTD/MT-23-209-69

Heat-Resistant Casting Alloy Containing Nitrogen  
for Temperatures of 600-670°C, by Yu. A. Mekhendzi,  
K. P. Lebedev. 13 pp.  
RUSSIAN, per, Trudy Leningrad. Politekhicheskii  
Institut, No 295, 1968, pp 57-64.  
AIR/FTD/MT-23-209-69

Oxidation Resistance of Nickel-  
Based Alloys, by A. V. Guts,  
L. A. Panyushin, 18 pp.  
RUSSIAN, rpt, Leningrad. Polite-  
khicheskii Institut. Trudy,  
No 295, 1968, pp 90-97  
AIR/FTD-HT-23-317-69

Influence of Conditions of Melting and Pouring the Alloy L1607 Al on The Properties of Cast Turbine Blades, by M. F. Bogdanov, L. B. Getsov, 18 pp.  
RUSSIAN, rpt, Leningrad, Politekhnikeskii Institut, Trudy, No 295, 1968, pp 98-107.  
AIR/FTD/HT-23-317-69

Research into the Effectiveness of Steelmaking Processes, by V. A. Nomenets,  
RUSSIAN, Symposium, Trudy Moscow Institute of Steels and Alloys, Metallurgiya, No 44, 1977, pp 30-331.  
\*BISI SPO

The Question of Producing Articles From Silicon Nitride, by I. Ya. Guzman, Ye. I. Tumakova, 7 pp.  
RUSSIAN, per, Trudy Moscow, Khimiko-Tekhnologicheskii Institut, No 50, 1966, pp 200-204.  
AIR/FTD/MT-24-301-69

A Study of the Sintering of Boron Nitride Powders Under Hot Pressing, by I. G. Kuznetsova, D. N. Poluboyarinov, 7 pp.  
RUSSIAN, per, Trudy Moscow, Khimiko-Tekhnologicheskii Institut, No 50, 1966, pp 205-209.  
AIR/FTD/MT-24-301-69

Dynamics of the Process of Electrical Erosion of Metals by Electric Pulse Discharge, by B. N. Zolotykh, 27 pp.  
RUSSIAN, rpt, Trudy Soveshchaniya Elektricheskoye Kontakty. (Transactions of the Conference 26-28 November 1956), 1958, pp 27-49.  
AIR/FTD/MT-24-306-69

The Effect of the Parameters of a Gear-Link Mechanism on the Mean-to Minimal Velocity Ratio, by Ye. B. Gol'denberg, 11 pp.  
RUSSIAN, rpt, Trudy Vsesoyuznoye Soveshchaniye po Osnovnym Problemam Teorii Mashin i Mekhanizmov 4th, Moscow, 1966, pp 46-53.  
AIR/FTD/HT-23-651-69

Some Investigations of Antifriction Properties of Nonmetallic Materials Paired with Bronze Using Water Lubrication, by S. Sorozhev, V. P. 6 pp.  
RUSSIAN, per, Ukraine, Ministerstvo Vysshogo i Srednego Spetsial'nogo Obrazovaniya, Detali Mashin i Pod'yemno-Transportnyye Mashiny, No 1, 1966, pp 39-43.  
AIR/FTD/MT-24-313-69

Certain Results of Studies of the Low-Cycle Fatigue of a Heat-Resisting Steel, by V. I. Kovalev, Yu. A. Kuznetsov, 6 pp.  
RUSSIAN, bk, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktivnykh Elementov pri Vysokikh Temperaturakh, 4th, Kiev, Temprochnost' Materialov i Konstruktivnykh Elementov Materialy, 1967, pp 310-313.  
AIR/FTD/HT-23-12-69

Apparatus for Studying the Induranc of Heat-Resisting Alloys with Programmed Variation of Temperature and Load, by V. T. Trachchenko, Yu. A. Shemegan, 5 pp.  
RUSSIAN, bk, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktivnykh Elementov pri Vysokikh Temperaturakh, 4th, Kiev, Temprochnost' Materialov i Konstruktivnykh Elementov Materialy, 1967, pp 356-359.  
AIR/FTD/HT-23-12-69

Effect of Stress Concentrations on the Thermal-Fatigue Resistance of EI703 Heat-Resisting Steel Sheet, by V. M. Filipenko, 7 pp.  
RUSSIAN, bk, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktivnykh Elementov pri Vysokikh Temperaturakh, 4th, Kiev, Temprochnost' Materialov i Konstruktivnykh Elementov Materialy, 1967, pp 370-375.  
AIR/FTD/HT-23-12-69

Electroless Nickel Plating of Aluminum and its Alloys, by N. T. Kudryavtsev,  
RUSSIAN, per, Zashch. Met., Vol 5, No 2, 1966, pp 174-176.  
NLL Ref: 9022.401 (746-309)

Deposition of Some Metals and Alloys from Complex Polyligand Electrolytes, by F. K. Andryushchenko and V. V. Orekhova,  
RUSSIAN, per, Zashch. Met., Vol 5, No 3, 1966, pp 287-291.  
NLL Ref: 9022.401 (746-297)

Lubricant for Hot Pressure Working of Metal, by P. I. Chuyko, Ye. I. Tsyganok, 2 pp.  
RUSSIAN, Patent, No 222 579, 17 Apr 1967.  
AIR/FTD/HT-23-514-69

Rapid Analytical Methods for the Investigation of Metals and Inorganic Raw Materials, by Z. Sulcek, J. Dolezal, 19 pp.  
CZECH, per, Chem Commun, Vol 26, No 1, 1961, pp 246-254.  
AEC/UCRL-Tr-10443-70

Complex Blooming-Mill Automation Abroad,  
by V. Pokorný,  
CZECH, per. Hutník, Vol 18, No 5, 1968, pp 229-232.  
BISI 7229

Balance Comparator Tool for a Production Control  
System, by J. Jeník and J. Šupčí,  
CZECH, per. Hutn. listy, Vol 24, No 4, 1969,  
pp 223-224.  
BISI 7211

Cleaning Flue Gases from a 75-ton Tandem Furnace  
in the Klement Gottwald Steelworks, by P. Morcinek  
and L. Svidrnoch,  
CZECH, per. Hutník, Vol 18, No 12, 1968,  
pp 540-544.  
BISI 7436

Spectrographic Determination of Sulphur in Steel,  
by B. Poljak,  
CZECH, per. Hutn. listy, Vol 24, No 4, 1969,  
pp 209-209.  
BISI 7425

Statistical Correlation of Production Technology  
Indices in Steel Production with the Yield in the  
Anne Rolling Mill, by J. Velická and A. Moravec,  
CZECH, per. Hutník, Vol 19, No 1, 1969, pp 11-13.  
BISI 7439

New Trends in the Development of Cold Plate,  
by M. Zidek,  
CZECH, per. Hutn. listy, Vol 24, No 5, 1969,  
pp 331-337.  
BISI 7716

Recovery of Fine Iron Ore Sludges by Sintering,  
by Z. Demek,  
CZECH, per. Hutník, Vol 19, No 2, 1969, pp 41-43.  
BISI 7382

Optimum Drawing Die Angles for Round Bars and  
Wire, by O. Gajdorus,  
CZECH, per. Hutn. listy, Vol 24, No 6, 1969,  
pp 421-423.  
BISI 7726

Computer Control of an Oxygen-Converter Shop,  
by J. Toth and J. Dubovský,  
CZECH, per. Hutník, Vol 19, No 3, 1969, pp 86-89.  
BISI 7644

The Bond Between Reinforcement and Concrete,  
by H. Martin,  
CZECH, per. Inženýrské Stavby, Vol 16, No 12,  
1968, pp 540-545.  
NLL Ref: 5196 (1486)

Electroslag Remelting Technique of Steel and  
Tap Vacuum Treatment, by Z. Kleťecká and M. Kepka,  
CZECH, per. Hutník, Vol 19, No 4, 1969, pp 128-131.  
BISI 7672

Activation Enthalpy of Self-Diffusion in  
Metals, by B. Million, 10 pp.  
CZECH, per. Kovové Materialy, vol 1, 1967  
pp. 33-42.  
\*CFSTI TT 70-56039  
AVAILABLE FROM NBS ONLY

More Accurate Calculation of the Rolling Pres-  
sure for High-Alloy Steels, by D. Sichová,  
CZECH, per. Hutn. listy, Vol 23, No 10, 1968,  
pp 694-699.  
BISI 7240

A Study of Brittle Rupture Conditions in Very  
High-Strength Steels by K. Mazanec, L. Ryspecka,  
P. Pabuta, 19 pp,  
CZECH, per. Kovové Materialy No 5, 1968, pp 471-485  
AIR/FTD/ET-23-553-69

Gas Volume and Pressure Conditions in Tandem  
Furnaces, by V. Bulina,  
CZECH, per. Hutn. listy, Vol 24, No 3, 1969,  
pp 167-171.  
BISI 7642

Using Gas to Heat Steel with Reduced Scaling-II,  
by K. Holzbecher and I. Hypr,  
CZECH, per. Plyn., Vol 49, No 2, 1969, pp 34-47.  
BISI 7434

Steelmaking in Tandem Furnace, by M. Harok, et al.,  
CZECH, per. Hutn. listy, Vol 24, No 4, 1969,  
pp 233-240.  
BISI 7411



The Influence of Infiltration on the Fatigue Limit of Wires for Steel Ropes, by J. Borovina, CZECH, per. Rudy, Vol 15, No 2, 1967, pp 51-52. BISI 7411

The Effect of Manganese on the Activity of Oxygen in a Fe-Mn-O System at Steelmaking Temperatures, by A. Buncak, et al., CZECH, paper, Sbornik V.S.B. Ostrave, Rada matnicka, Vol 15, 1967, Paper 307, pp 3-11. BISI 7419

Operational Measurement on the Continuous Heating Furnace of the MILK Iron and Steel Works at Kuncice, by A. Cvracka, CZECH, per. Sbornik V.S.B. Ostrave, Rada, Vol 14, No 4, 1968, pp 143-152. BISI 7983

The Effect of Ageing on the Low Cycle Fatigue Strength of Welded Joints in 13030 (CSN) Steel, by A. Bendis, CZECH, per. Zvaranie, Vol 17, No 6, 1968, pp 100-108. BISI 6758

The Weldability of Thin Plates of MnV - Steel from the Standpoint of Cracking, by J. Vrbensky, CZECH, per. Zvaranie, Vol 18, No 5, 1969, pp 143-147. BISI 7666

New Laboratory for Iron and Steel Analyses, by A. Waasdrop, DUTCH, per. Samen, Vol 38, No 3, 1969, pp 60-63. BISI 7694

Application of Paper Chromatography to the Determination of Trace Elements in Silicates, FRENCH, per. Bull Soc Fran Ceram., Apr/Jun, 1969, pp 27-33. \*BISI 6190

Radio-Tracer Study of the Solidification Process in Industrial Ingots, by A. Kohn, et al., FRENCH, per. C.D.S. Circ., No 2, 1969, pp 543-550. BISI 7751

Refinement of Iron Ore, by L. Gabor, et al., FRENCH, per. C.D.S. Circ., Vol 15, No 1, 1967. \*BISI 73

Controlling the Sulphur Content of Steel in the LD Plant of Silesia-Upper-Silesia in Germany, by L. Hassen and P. Lutz, FRENCH, per. C.D.S. Circ., No 7/8, 1967. \*BISI 6164

Moisture Control of a Sintering Mixture with a Neutron Retrodiffusion Probe, by H. Arpeing, FRENCH, per. C.D.S. Circ., No 7/8, 1967, pp 1733-1740. \*BISI 6164

Treatment of Liquid Metal by Blowing or Exhaling Argon into the Furnace or Ladle, by J. Miesionne, FRENCH, per. C.D.S. Circ., No 7-8, 1967, pp 1761-1821. \*BISI 6114

Water Test Reactivity and Steel Making Reactivity of Steel Works Lime, by D. Mansuy, FRENCH, per. C.D.S. Circ., Vol 20, No 9, 1969, pp 2047-2062. \*BISI 6151

Some Applications of the "Quantimet" Quantitative Microscope, by R. Roche, FRENCH, per. C.D.S. Circ., No 10, 1968, pp 2243-2248. BISI 7320

The Influence of Manganese on the Hardening of Martensitic Steels of the "Maraging" Type, by J. Manenc, FRENCH, paper, Conference on Manganese, Paris, June 1969. BISI 7586

Influence of Surface Condition on the Kinetics of Phosphation of Steel on Properties of Phosphate Layer, by E. Ghali, et al., FRENCH, per. Corros. Trait. Prot. Fin., Vol 16, No 6, 1968. \*BISI 8173

Inhibitors in the Vapour Stage, by M. Juyottee, FRENCH, per. Corros. Trait. Prot. Fin., Vol 17, No 6, 1969, 295-300. \*BISI 8158

Electrochemistry of Metals in Na-Metal Electrolyte  
and in Na-Metal Electrolyte, by R. V. Lindsey, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 1-10.  
\*BISI 1111

Effect of Temperature on the Properties of Steel  
in the Austenitic Region, by R. V. Lindsey, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 11-18.  
\*BISI 1112

Methods of Using Pre-Heated Products  
in an Electric Steelmaking Furnace, by J. Antoine,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 19-24.  
\*BISI 1113

The Ability to Undergo Deep Drawing of Austenitic  
Stainless Steels in Relation to the Coefficients  
of Work Hardening and Anisotropy, by J. Lefevre,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 25-30.  
\*BISI 1114

Se Relation and Homogenisation in Austenitic  
Stainless Steel, by J. Lefevre, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 31-36.  
\*BISI 1115

Determination with the Aid of Electrochemical Cells  
of the Oxygen Dissolved in Liquid Iron and Steel,  
by C. Battelier, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 37-42.  
\*BISI 1116

Automation in Coking Plants, by E. Canivez,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 43-48.  
\*BISI 1117

Paper on the Use of Petroleum Products in Blast  
Furnaces, by J. Cordier, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 49-54.  
\*BISI 1118

Electrochemical Investigation of the Properties of  
Steel in the Austenitic Region, by R. V. Lindsey, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 1-10.  
\*BISI 1119

Devices for Direct Measurement of the Properties of  
Steel in the Austenitic Region, by R. V. Lindsey, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 11-18.  
\*BISI 1120

Effect of Type of Steel on the Properties of  
Artificial Aging on the Properties of the Steel  
in the Austenitic Region, by R. V. Lindsey, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 19-24.  
\*BISI 1121

Gravimetric Investigation of the Mechanism of the  
Decarburization Action of Silicon-Silicon Carbide  
Melts under Oxidizing Conditions, by T. E. Schenck,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 45-50.  
\*BISI 1122

Kinetics of the Formation of Fe<sub>2</sub>O<sub>3</sub> Carburized in  
Steel 10. Cr, by R. Borchers and R. Lottin,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 51-56.  
\*BISI 1123

The FeO-Fe<sub>2</sub>O<sub>3</sub>-CaO-P<sub>2</sub>O<sub>5</sub> Phase Diagram in Air at  
1600 and 1800°C, by G. Tronel, et al.,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 57-62.  
\*BISI 1124

Atomic Absorption Spectrometric Analysis of  
Oxides and Carbides Isolated from Steels,  
by R. H. Sauer and H. Mitsche,  
J. Electrochem. Soc., Vol. 106, No. 1, 1959, pp. 63-68.  
\*BISI 1125

Scientific  
Materials Council

Scientific  
Materials Council

Contribution to the Photometric Determination of the Vanadium Content, by U. Grisar,  
GERMAN, per. Arch. Eisenh., Vol 40, No 17, 1969,  
pp 207-208.  
\*BISI 8171

Effect of Alloying Elements on Hardenability,  
by A. Moser and A. Isenst,  
GERMAN, per. Berg- Hütten Monatsheft, Vol 110,  
No 11, 1967, pp 221-221.  
\*BISI 8177

Contribution to the Electrometric Determination of  
Manganese, by W. Thonick,  
GERMAN, per. Arch. Eisenh., Vol 41, No 17, 1970,  
pp 217-218.  
\*BISI 8184

Corrosion Protection by Chemical Treatment,  
by H. Isenst,  
GERMAN, per. Berg- Hütten Monatsheft, Vol 110,  
No 11, 1967, pp 221-221.  
\*BISI 8189

Adaption of Emission Spectrometric Analysis of  
Steel to a Rapid Data Flow, by K.-H. Koch, et al.,  
GERMAN, per. Arch. Eisenh., Vol 41, No 1, 1970,  
pp 23-24.  
\*BISI 8148

Plastic Anisotropy as an Important Criterion for  
Determining the Deep Drawing Capability of  
Steel Sheet, by G. S. A. Schwarz,  
GERMAN, per. Berg- Hütten Monatsheft, Vol 110,  
No 11, 1967, pp 221-221.  
\*BISI 8151

Rapid Analysis of Slags by X-Ray Fluorescence  
Spectrometry, by K.-H. Koch, et al.,  
GERMAN, per. Arch. Eisenh., Vol 41, No 1, 1970,  
pp 27-28.  
\*BISI 8142

The Decarburization of Steels in Oxidizing and  
Non-Oxidizing Gases, by G. Naumann,  
GERMAN, Thesis to Clausthal Technischen Universität,  
1966, 47 pp.  
\*BISI 8136

New Findings on the Use and Production of Combustion  
Gases as Furnace Atmospheres for the Heat  
Treatment of Steel, by W. Gohring,  
GERMAN, per. B.H.M., Vol 114, No 9, 1969, pp 279-289.  
\*BISI 8135

High-Temperature Corrosion of Iron, Nickel,  
Chromium, Nickel-Chromium, and Nickel-Iron  
20% Chromium Alloys Due to Vanadium Pentoxide  
and Hydrogen Sulphide, by W. Spyra,  
GERMAN, per. D. E. W. Tech. Berichte, Vol 8, 1968,  
pp 52-58.  
CEGB  
C. E. trans 5172

Present State of the Art of the Electrodeposition  
of Zinc, by H. W. Dettner,  
GERMAN, per. Bander Bleche, Vol 10, No 5, 1969,  
pp 271-274.  
\*BISI 8159

The Powder Metallurgy of High-Temperature Alloys  
on a Cobalt and Nickel Base, by H. Grunewald,  
and P. Kassner,  
GERMAN, per. DEW Tech. Ber., Vol 9, 1969, pp 186-192  
NLL Ref: 9022.401 (746-291)

Measuring on Polythene Corrosion Protective  
Coats on Steel Tubes, by V. Hauk, et al.,  
GERMAN, per. Bander-Bleche, Vol 10, No 5, 1969,  
pp 274-279.  
BISI 7893

Whisker and Whisker Reinforced Metals,  
by H. Grunewald and P. Kassner,  
GERMAN, per. DEW Tech. Ber., Vol 9, 1969, pp 199-205  
NLL Ref: 9022.401 (746-289)

The Application and Anchoring of Parallel Wire,  
Cables as Tension-Loaded Members Subjected to  
High-Fatigue Stresses, by W. Andra and W. Zellner,  
GERMAN, per. Die Bautechnik, No 8, 1969,  
pp 263-315.  
\*BISI 8127

The Reliability (Safety) of High-Temperature  
Plant, by P. Gernhardt,  
GERMAN, per. DEW Tech. Ber., Vol 9, 1969, pp 353-359.  
NLL Ref: 9022.401 (746-246)

Scientific  
Materials Control

The Development of Stainless Ferritic Steels,  
by R. Langardt and W. Sogara,  
GERMAN, per. ISI Techn. Ber., Vol 9, No 9,  
pp 1-12.  
\*BISI 7903

The Influence of Austenite Stability on the  
Behaviour of Stainless Ferritic-Nickel Steels  
During Cold-Working, by P. Rame, et al.,  
GERMAN, per. ISI Techn. Ber., Vol 9, No 9,  
pp 13-14.  
\*BISI 7904

The Coiling of Wire Rod, by H. D. Hirschfeldner,  
GERMAN, per. Draht, Vol 19, No 11, 1968.  
\*BISI 7905

Series for Light-Section and Wire Mills From  
Combined Continuous Casting and Rolling Plants,  
by B. Taitman,  
GERMAN, per. Draht-Welt, Vol 58, No 1, 1968,  
pp 18-22.  
\*BISI 8113

Temperature Measurement During Drawing of Steel  
Wire Under Works Condition, by R. Bruhl,  
GERMAN, per. Draht-Welt, Vol 58, No 7, 1969,  
pp 413-417.  
\*BISI 7975

Apparent E-Modulus of Refractory Products at  
Elevated Temperatures, by L. Hagemann, et al.,  
GERMAN, per. Dtsch. Ber. Keram. Ges., Vol 45,  
No 7, 1968.  
\*BISI 8129

High-Temperature Rheology of Ceramic Materials  
III - Relaxation Behaviour of Refractory Materials,  
by H. W. Hennicke and R. Kersting,  
GERMAN, per. Dtsch. Ber. Keram. Ges., Vol 45,  
No 7, 1968, pp 337-340.  
\*BISI 8131

The Application of Electromagnetic Techniques  
to Steel Production and the Requirements of  
Refractories, by A. Majdic,  
GERMAN, per. Dtsch. Ber. Keram. Ges., Vol 46,  
No 7, 1969.  
\*BISI 8132

Scientific  
Materials Control

Instrument for Measuring the Thickness of Insulating  
Lacquer on Electrical Steel Sheet, by H. Löffler,  
GERMAN, per. Elektric, Vol 20, No 9, 1966.  
\*BISI 7903

Methods for Determining Secondary Circuit  
Parameters of Arc Furnaces, by E. Horoszewski,  
GERMAN, per. Elektrowärme Int., Vol 17, No 5,  
1969, pp 222-227.  
\*BISI 7909

Active and Passive Corrosion Protection of Oil  
Pipelines, W. G. von Baeckmann,  
GERMAN, per. Erdöl u. Kohle Erdgas Petrochemie,  
Vol 21, No 8, 1968, pp 475-480.  
\*BISI 7052

A New Apparatus to Investigate Lubrication of  
Metallic Friction Surfaces at High Load or High  
Temperature, by W. Baist,  
GERMAN, per. Erdöl und Kohle Erdgas Petrochemie,  
Vol 22, No 1, 1969, pp 24-29.  
\*MLL Ref: 9022.9 (1170)

Influence of the Crude Fluxing Agent Used in the  
Blast Furnace Process on the Specific Consumption  
of Coke and Blast as well as on the Specific Pro-  
duction of Blast Furnace Gas, by A. Geras,  
GERMAN, paper 1/2-13 The 5th Conference on Indust-  
rial Power Economy, Prague, 1967.  
\*BISI 7803

Working Time Measurements on Fork Lift Trucks  
with Movable Lift Frame, by F. Beisteiner  
and B. Topfer,  
GERMAN, per. Fordern Heben, Vol 19, No 1, 1969,  
pp 23-29.  
\*BISI 8118

Vacuum Treatment of Non-Alloyed Steels in the  
DH-Unit at Dortmund, by E. Amelung,  
GERMAN, paper, 4th International Vacuum Conference  
Burgenstock, June 1968, 9 pp.  
\*BISI 6900

Technological Preparations for Plate Rolling,  
by S. Bala, et al.,  
GERMAN, per. Frieberger Forschungsh., No 87,  
1963, pp 57-87.  
\*BISI 7152

Scientific  
Materials Council

Scientific  
Materials Council

New Method of Insulation for Coreless Induction  
Surfaces, by E. Wintermann,  
GERMAN, per. Elektrotechnik, No 11, 1969,  
pp 1-10.  
\*BISI 7170

Construction of a New Type of Induction  
Heating, by E. Wintermann, et al.,  
GERMAN, per. Elektrotechnik, No 11, 1969,  
pp 1-10.  
\*BISI 7170

Heat-Resistant Cast Iron - 100 H, by E. Wintermann,  
GERMAN, per. Elektrotechnik, No 11, 1969,  
pp 1-10, 11 pp 1-10.  
\*BISI 7170

Improving the Appliance of Induction Heating  
Process, by E. Wintermann, et al.,  
GERMAN, per. Industrie-Anzeiger, No 30, Apr. 1968,  
pp 10-11 & 13-14.  
\*BISI 7170

Investigation Concerning the Protective Enclosure  
of Salt Conveyors with Respect to the Formation  
and Removal of Dust, by E. Stier,  
GERMAN, per. Elektrotechnik, Vol 14, No 4, 1968,  
pp 103-112.  
\*BISI 7170

Precautions Against Formation of Wet Storage  
Stain on Hot Galvanized Products, by I. P.  
Haarmann,  
GERMAN, per. Industrie-Anzeiger, Vol 30, Apr.  
1968, pp 720-722.  
BISI 7170

Taking Samples for the Carbon Determination in  
Modular Cast Iron, by M. Scheite,  
GERMAN, per. Elektrotechnik, Vol 19, No 9, 1969,  
pp 143-146.  
\*BISI 7170

Testing the Wear Resistance of Lacquers,  
by G. Westhoff,  
GERMAN, per. Industrie-Lackier-Letrieb, Vol 37,  
No 2, 1969,  
BISI 7609

The Present Level of Coking Technology, by K. G.  
Beck,  
GERMAN, per. Gluckauf, Vol 105, No 4, 1969,  
pp 100-105.  
BISI 7607

Design Guidance and Processing Possibilities for  
Vibration-Damped Composite Sheet Systems Containing  
Thin Self-Adhesive Intermediate Layers,  
by P. Koch,  
GERMAN, per. Klebstoff-Fachber., No 6, 1966,  
pp 347-350.  
BISI 7603

Influence of Austenite Grain Size on the Properties  
of 15 MnCr 5 Steel, by A. Randak and R. Eberbach,  
GERMAN, per. Werkstoff-Techn. Mitt., Vol 24, 1969,  
pp 201-209.  
\*BISI 8117

Investigations of Chemical Protection of Mining  
Timber, by Trijntje Hof, 13 pp.  
GERMAN, per. Material und Organismen, Vol 2, No 4,  
1968, pp 257-270.  
ACSI J-7156  
FSTC-HT-23-71-70

Testing the Braiding of Wire Ropes, by K. Lotsch,  
GERMAN, per. Materialprüfung, Vol 9, No 12, 1967,  
pp 451-460.  
BISI 7606

Internal Stress Measurements by X-Ray Techniques  
on Martensite and Residual Austenite in Case-  
Hardened Steels, by L. Weigel, et al.,  
GERMAN, per. Werkstoff-Techn. Mitt., Vol 24, 1969,  
pp 221-232.  
\*BISI 8117

Contribution to the Question Whether the Deter-  
mination of the Upper or Lower Yield Stress  
Should be Specified with the Tensile Test,  
by V. Kravcenko,  
GERMAN, per. Materialprüfung, Vol 11, No 6, 1969,  
pp 240-247.  
\*BISI 8119

See notes  
 Monthly - Continued

On blue brittleness and Ageing, of Iron, by Horner  
and Dreyer,  
METALL, per. Mitt. N. Wilm. Inst. Eisenforsch.,  
No. 12, pp 59-67.  
ABSTRACT

The Production of Corrosion-Resistant Cast Materials and Their Use in Place of Solid Stainless and Other Alloyed Steels in Nonferrous Metals, by S. A. Golovinnenko, GITEK, per. Renee Rutte, May 14, 1969, pp. 27-31. All Ref: 9022,401 (79-244)

The Importance of Solution Annealing for the Selective Grain Growth of 3% Silicon Iron, by P. Klenze and G. Retsmann, GERMANY, per. Neue Hütte, Vol 14, No 6, 1969, pp 358-361.  
BISI 7695

Pyrogenic Materials, Their Properties and Their  
Destruction, by K. Rudat.  
GERMAN, per, Pharmazie, Vol 13, No 11, 1958,  
pp 677-681.  
\*ACSI J-8112  
ID 2204003770

Texture Determination and Description,  
by F. Maessner,  
GERMANY, Proceedings of the International Conference  
of Textures, Tech. University, Berlin, 1968,  
pp 1-23.  
\*BISI 8179

Examples for the Use of a Three-Dimensional  
Orientation Space for the Investigation and Rep-  
resentation of Orientation Distribution,  
by K. Lucke,  
GERMAN, Proceedings of the International Conference  
on Textures, Tech. University, Berlin, 1969,  
pp 36-50.  
\*GSI 8180

On Determining the Partial Diffusion Coefficients in Volume Diffusion of Metals, by W. Seith, et al, 15 pp. GERMAN, per, Proc. Int. Symp. on Reactivity of Solids, Gothenburg 1, 1952, pp. 63-80.

\*CFSTI TT 70-58087

AVAILABLE FROM NBS ONLY

55

Improvements of the Flow in Hot Plant Stoves Through Aerodynamic Model Tests, by S. Gernack and Ph. S. Lang,  
GERMAN, per. Index Rud., No 5, 1969, pp 760-761.  
BISI 813

Structures and Structural Methods Using New Fiber-Reinforced Composite Materials, with Special Attention Given to Boron Fibers, by R. Kochendoerfer.  
GERMAN, per. Raumfahrtforschung, Vol 13, July-Aug 1969, pp 175-180.  
\*NASA TT F 12,941

Modern Water Economy in Blast-Furnace Plants, by K. F. Roeder and G. Schmiegelsberg,  
GERMAN, per. Rev. Tech., Luxembourg, Vol 1, Apr-Jun, 1968, pp 102-106.  
BISI 7037

Effect of Galvanised and Painted Protective Layers Upon Welds in Steel Constructions, by G. Bertholz,  
GERMAN, per. Schweisstechnik, Vol 19, No 2, 1969,  
BISI 8001

Improved Materials for Fishing, by W. Bobzin, 3pp  
GERMAN, per. Seewirtschaft, vol 1, no 12, 1969  
pp. 984-986  
\*USDI/BCF TT 70-55076

On Blue Brittleness and Ageing of Iron, by F. Fettweis,  
GERMAN, per. Stahl Eisen, Vol 39, No 1 & 2, 1919, pp 1-7, & 25-41.  
\*BISI 8161

Finishing Shops in Light Section Mills, by H. Weidemann,  
GERMAN, per. Stahl Eisen, Vol 79, No 4, 1959,  
pp 543-545.  
BISI 7895

The Effect of the Difference in Limestone Type on the Course of Refining in the Basic Bessemer Converter, by W. Kohler, et al.,  
GERMAN, per. Stahl Eisen, Vol 80, No 23, 1960,  
pp 1689-1695.  
BISI 7565

A New Intermediate Alloy, by H. Richter and H. E. Hille,  
GERMAN, per. Stahl Eisen, Vol 80, No 1, 1960,  
pp 141-142.  
BISI 7807

The Design Shop: A View from the Steel Industry, by H. H. Wenz,  
GERMAN, per. Stahl Eisen, Vol 80, No 1, 1960,  
pp 143-144.  
BISI 7807

Application of Simulation Methods in the Iron and Steel Industry II, by A. Schreiner, et al.,  
GERMAN, per. Stahl Eisen, Vol 80, No 11, 1960,  
pp 1309-1315.  
BISI 7257

Problems of Dust Removal From Waste Gases From Iron Ore Sintering Plants, by R. Lotze,  
GERMAN, per. Stahl Eisen, Vol 80, No 12, 1960,  
pp 1414-1422.  
BISI 7274

Increasing the Efficiency of Existing Dust Removal Plants for Flue Gas, by R. Lotze,  
GERMAN, per. Stahl Eisen, Vol 80, No 1, 1960,  
pp 30-35.  
BISI 7500

Suitability of Open-Hearth Slags for Use in Road Building, by H. -E. Schwiete, et al.,  
GERMAN, per. Stahl Eisen, Vol 80, Apr 1960.  
BISI 7655

Present State and Future Outlook of the Generation of Nuclear Power, by A. Buch,  
GERMAN, per. Stahl Eisen, Vol 80, No 6, 1960,  
pp 696-704.  
BISI 7841

The Use of Deoxidation Kinetics for the Production of Semi-Killed Steel, by L. Bogdandy, et al.,  
GERMAN, per. Stahl Eisen, Vol 80, No 6, 1960,  
pp 704-710.  
BISI 7749

Scientific  
Materials Control

The Metallurgy of Hydrogen in Steelmaking,  
by M. Wahlster and A. Hilpert,  
GERMAN, per. Stahl Eisen, Vol 89, No 9, 1969,  
pp 710-718.  
BISI 7770

Determination of the Conditions for Gas Flow  
Through a Blast Furnace by Means of a Probe Intro-  
duced Horizontally Above the Charge,  
by A. Oberhauser, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, July 1969,  
pp 700-700.  
BISI 7743

Selection of Influences Made on Hot Strip Rough-  
ness by Using Milling Techniques in Continuous  
Hot Strip Rolling Mills, by P. Funke and  
W. Mikulla,  
GERMAN, per. Stahl Eisen, Vol 89, Jul 1969,  
pp 801-807.  
BISI 7678

Soaking Pits and Pusher Furnaces as Operating  
Facilities for the Crews of High-Capacity Rolling-  
Mill Trains, by F. Weber and K. H. Rieskamp,  
GERMAN, per. Stahl Eisen, Vol 89, No 9, 1969,  
pp 904-1004.  
BISI 7350

Planning Construction and Operational Results of  
Hot Rolling Mill for Wide Strip with a Roughing  
Train of Novel Design, by A. Tix, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, No 10, 1969.  
\* BISI 8140

Effect of Niobium and Vanadium on the Structure  
and Properties of Low-Pearlite Steels Killed by  
Aluminum, by L. Meyer, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, Oct 1969,  
pp 1235-1249.  
BISI 7907

Experiences with Isotope Thickness Measuring  
Device in an Automated Heavy Medium Plate Rolling  
Mill, by G. Wiethoff, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, No 11, 1969,  
pp 1294-1300.  
BISI 7940

Scientific  
Materials Control

Measurement of the Distribution of Temperatures  
During the Drawing of Round Bars, by D. Fuesel  
and K. Hopp,  
GERMAN, per. Stahl Eisen, Vol 89, No 11, 1969,  
pp 1340-1340.  
\*BISI 8143

Effect of Reduction per Pass, Reduction Ratio and  
Advance and Groove Design in Cold Rolling, on the  
Mechanical Properties of the Rolled Steel,  
by W. Iuhl, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, Nov 1969,  
pp 1377-1378.  
BISI 8025

Report on an Investigation Concerning Ship  
Unloaders, by P. Wendel, et al.,  
GERMAN, per. Stahl Eisen, Vol 89, No 11, 1969,  
pp 1452-1456.  
\*BISI 8103

Emptying Ore Wagons in Frosty Weather, by K. H.  
Wolf and P. Hainke,  
GERMAN, per. Stahl Eisen, Vol 89, No 20, 1969,  
pp 1105-1112.  
BISI 8048

Development in the Production Methods of Parallel  
Flange Beams in Universal Mills, by H. Matthaei,  
GERMAN, per. Stahl Eisen, Vol 89, No 25, 1969,  
pp 1423-1426.  
BISI 8100

Experience in the Continuous Casting of Round  
and Small Square Sections, by D. Habert,  
GERMAN, per. Stahl Eisen, Vol 90, No 1, 1970,  
pp 8-12.  
\*HB 8124

Investigations into Softening Processes in the  
Hot Working of Austenitic Steel, by H. D. Buhler,  
GERMAN, per. Stahl Eisen, Vol 90, No 1, 1970,  
pp 21-28.  
\*HB 8147

The New Basic Oxygen Plant of August Thyssen-  
Hütte AG, by K. Behrens, et al.,  
GERMAN, per. Stahl Eisen, Vol 90, No 2, 1970,  
pp 53-63.  
\*HB 8135



The Effect of the Return Pines on Sintering, Output and Sinter Quality, by G.-W. Kamm and R. Jansen, GERMAN, per. Stahl Eisen, Vol 80, No 1, 1960, pp 40-45.  
\*BISI 713

Determination of Aluminum in Low Alloy Steels by Spectral Analysis and in Steels by Atomic Absorption Spectrometry, by R. Kunkel, et al., GERMAN, per. Z. anal. Chemie, Vol 180, 1960, pp 137-142.  
\*BISI 714

Structural Steel Components for Guide and Guard Rails Used for Road Safety Purposes, by F. Bittel, GERMAN, Stahl im Strassenverkehr, Sec 5, 1967.  
\*BISI 715

Procedure for Decision Making in Research and Development Expenditure, by J. A. Becker, GERMAN, per. Z. für Betriebswirtschaft, Vol 17, 1967, pp 27-33.  
\*BISI 716

Processes for the Production of Iron and Steel Directly from Ore without a Blast Furnace, by L. Langerweber, GERMAN, per. Technica, Vol 17, No 12, 1968, pp 2923-2928.  
\*BISI 717

Diffusion Measurements in W-Nb System with Single and Polycrystalline Materials, by E. Gebhardt, et al, 7 pp. GERMAN, per. Z. Metallkunde, 54, 1963, pp 437-443.  
\*CESTI TT 70-58085  
AVAILABLE FROM NBS ONLY

On the Reduction Mechanism of CaO-Containing Iron Oxide Sintered Bodies, by G. Sabat and H. J. Engell, GERMAN, per. Techn. Mitt. Krupp, Vol 20, No 12, 1968, pp 117-124.  
\*BISI 718

Continuous Casting of Steel, by H. von Ende and E. J. Speith, GERMAN, per. Z. Metallk., No 4, Vol 60, 1969, pp 258-266.  
\*BISI 719

Permeability of Hydrogen as a Feature Typical for the Fish Scale Tendency in Enamelled Sheet Steel, by L. Leontaritis and E. Buchel, GERMAN, per. Thyssenforschung, Vol 1, No 2, 1969, pp 65-69.  
\*BISI 8173

Microstructure of Continuous Castings and its Effect on Mechanical Properties, by H. von Ende and H. Hengstenberg, GERMAN, per. Z. Metallk., Vol 60, No 2, 1969, pp 240-250.  
\*BISI 720

I-Sources of Error in Comparative Surface Roughness Measurement and their Elimination in Practice, by H. J. Becker, GERMAN, per. TZ Prakt. Metallbearb., Vol 63, May 1969, pp 233-236.  
\*BISI 7752

Gas Carburizing Techniques, by J. Wunnig, GERMAN, per. Z. wit. Fert., Vol 64, No 2, 1969, pp 456-464.  
\*BISI 7998

The Accelerating Effect of Sulphur Dioxide and Water on the Atmospheric Corrosion of Rusty Iron, by K. Barton and K. Bartonova, GERMAN, per. Werks. Korros., Vol 20, No 3, 1969, pp 216-221.  
\*BISI 7929

Nozzle for Ladles or Other Metal Receptacles, by H. Sauerland and R. Hoenig, GERMAN, Patent Specifications 1,809,482  
\*BISI 8177

A Comparative Study of Stress Corrosion Cracking and Corrosion Fatigue, by H. Spohn and U. Steinholdt, GERMAN, per. Korrosstoffe Korros., Vol 20, No 2, 1969, pp 117-124.  
\*BISI 7929

The Use of Case Hardened Structural Steels as Material for Articles Requiring Accelerated Transformation of Austenite into Ferrite and Pearlite After Heat Treatment, by H. Burgerit and E. Hesse, GERMAN, Patent 1,153, 9.  
\*BISI 8104

Scientific  
Materials Control

Influence of Nitrogen on the Lowering of the A Point in the Fe-C-N System, by A. Lurdese, et al., ITALIAN, per. Met. Ital., Vol 59, Dec 1967, pp 949-952.  
\*BISI 7043

Influence of Nitrogen on the Lowering of the A Point in the Fe-C-N System, by A. Lurdese, et al., ITALIAN, per. Met. Ital., Vol 59, Dec 1967, pp 949-952.  
\*BISI 7043

The Influence of Some Alloying Elements on the Rate of Decarburization of Steels in Elementary Controlled Atmospheres, by G. Chioatto, ITALIAN, per. Met. Ital., Vol 60, Jul 1968, pp 627-639.  
\*BISI 7140

Effect of Hot Rolling Practice on Oxygen Content of Steel, by E. Ametrano, et al., ITALIAN, per. Met. Ital., Vol 61, No 11, 1969, pp 130-139.  
\*BISI 8133

Direct Rolling of Powders for Fibrous Composites, by E. G. Visconti, ITALIAN, per. Met. Ital., Vol 61, No 11, 1969, pp 890-899.  
\*BISI 8134

Effect of Fluidisation on the Reduction of Iron Ores with Gas Containing CO and H<sub>2</sub>, by J. Willems, ITALIAN, per. Riv. Combust., Vol 14, 1960, pp 118-135.  
\*BISI 8107

The Corrosion Resistance of Austenitic Stainless Steels in a Nitric Acid Environment, by L. Marchesini and G. Scarinci, ITALIAN, per. Tecnica Italiana, Vol 32, 1967, pp 575-585.  
\*BISI 7513 - I

The Protective Properties of Inorganic Zinc Rich Paints, by Azata, et al., JAPANESE, per. Boshoku Gijutsu, Vol 17, No 2, 1968.  
\*BISI 7117

Scientific  
Materials Control

Study on Corrosion of Steels at Harbours, by H. Ito, JAPANESE, per. Boshoku Gijutsu, Vol 17, No 2, 1968.  
\*BISI 7117

Study on Corrosion of Steels at Harbours, by H. Ito, JAPANESE, per. Boshoku Gijutsu, Vol 17, No 2, 1968.  
\*BISI 7117

Study on Corrosion Prevention Method Around Spineless Bone for Marine Structures (Steel), by S. Nagasui, JAPANESE, per. Boshoku Gijutsu, Vol 18, No 1, 1969.  
\*BISI 7118

Airne Flotation, by Shimidzu and M. Kanetake, JAPANESE, per. Ausen, No 36, 1968, pp 1-10.  
\*BISI 8123

I - Studies of Flash Resistance Sintering of Metal Powders, by T. Sakai, et al., JAPANESE, per. J. Japan Soc Powder Met., Vol 12, 1969.  
\*BISI 8130

On the Atomizing Variables in the Production of Metal Powder by Liquid Atomization, by H. Tanura and S. Wanikawa, JAPANESE, per. J. Japan Soc. Powder Met., Vol 15, No 10, 1968, pp 302-307.  
\*BISI 7607

On the Tempered Structure of Worked and Quenched 0.47% Carbon Steel, by M. Nakamura, et al., JAPANESE, per. Nippon Kinzoku, Vol 32, No 11, 1968, pp 1043-1046.  
\*BISI 7496

Effect of Hydrostatic Pressure Treatment of Mechanical Properties of Heat-Treated Chromium-Molybdenum Steel, by N. Kanetake, et al., JAPANESE, per. Nippon Kinzoku, Vol 33, No 1, 1969.  
\*BISI 7771

The Cold Rolled Steel Sheet for Automobiles - Hot Steel Sheet Metal, by S. Miyoshi, et al., JAPANESE, per. Nippon Kinzoku, Vol 33, No 6, 1969, pp 143-147.  
\*BISI 777

Transmission Electron Microscope Observation of  $\omega$ -Phase in Titanium - 5% Iron Alloy, by S. Oshio, JAPANESE, per. Nippon Kinzoku, Vol 33, No 4, 1969, pp 437-442.  
\*BISI 789

The Effects of Sulphur on the Recrystallization of Cold Rolled 3.17% Al-Fe Alloy Sheet, by H. Nakae and H. Goshi, JAPANESE, per. Nippon Kinzoku, Vol 33, No 6, 1969, pp 553-557.  
\*BISI 791

On the Rust Layer of Low-Alloy Steel, by R. Fodoroki and S. Kado, JAPANESE, per. Nippon Kinzoku, Vol 33, No 7, 1969, pp 806-810.  
\*BISI 8121

An X-Ray Study on the Absorption of Hydrogen in the Austenitic Stainless Steels, by K. Kamachi, JAPANESE, per. Nippon Kinzoku, Vol 33, No 7, 1969, pp 824-829.  
\*BISI 8120

"Altight" Aluminized Steel Sheet, by K. Toki, et al. JAPANESE, per. Nippon Kokan Techn. Rep., No 5, 1963, pp 101-110.  
\*BISI 7900

Synthesis of Prussic Acid IX - On the Solubility of Prussic Acid in Water, by J. Horiuti and K. Tanabe, JAPANESE, per. Shokubai, Vol 8, 1952, pp 24-36.  
\*BISI 8122

The Factors Influencing the Quality of Lime Sinters, by H. Nishida, JAPANESE, per. Techn. Rep. Fuji Iron and Steel, No 4, 1959, pp 356-369.  
\*BISI 8122

Generally Used Steel Sheet - Steel, by S. Oshio, JAPANESE, per. Nippon Kinzoku, Vol 33, No 6, 1969, pp 143-147.  
\*BISI 777

The Development of Nuclear Energy and Its Use in the Iron and Steel Industry, by S. Oshio, JAPANESE, per. Nippon Kinzoku, Vol 33, No 4, 1969, pp 437-442.  
\*BISI 789

Study of the Manufacture of Self-Heating Furnace and their Use in the Blast Furnace, by S. Fujii, JAPANESE, per. Tetsu-to-Hagane, Vol 55, No 10, 1969, pp 1241-1259.  
\*BISI 712

On the Behaviour of Hydrogen in the Blast Furnace Top Gas, by K. Ono, et al., JAPANESE, per. Tetsu-to-Hagane, Vol 55, No 12, 1969, pp 1260-1272.  
\*BISI 7322

The Change of Properties of the Charge Materials in a Blast Furnace Shaft, by T. Nakazawa and M. Sasaki, JAPANESE, per. Tetsu-to-Hagane, Vol 55, 1969, pp 112-122.  
\*BISI 7535

Theoretical Analyses of High-Pressure Operation and Oxygen-Enriched Operation of Blast Furnace, by K. Wakabayashi, et al., JAPANESE, per. Tetsu-to-Hagane, Vol 55, No 10, 1969, pp 867-876.  
\*BISI 8184

Thermal Convection During the Freezing of Killed Steel, by T. Miyagawa, et al., JAPANESE, per. Tetsu-to-Hagane, Vol 55, No 11, 1969, pp 338-341.  
\*BISI 7890

On Electro-Slag Remelting of Steels, by K. Marita, JAPANESE, per. Tetsu-to-Hagane, Vol 55, No 12, 1969, pp 981-1006.  
\*BISI 8185

Scientific  
Materials Council

Laboratory Tests of Limestone Calcination in a Fluidized Bed Furnace, by A. Stec, et al.,  
POLISH, per. Hutnika, Vol 35, 1967, pp 343-401.  
\*ISI 740

Investigation on the Effect of Carbon on the Diffusion of W in Steel, by  
J. Kleszniewski, 5 pp.  
POLISH, per. Prace Instytutow Hutniczych  
vol 19, 1967, pp. 253-257.  
\*CFSTI TT 70-55077

Calculation Capital Investment Effects in a Developing Steelmaking Industry, by W. Folye,  
POLISH, per. Problemy Projekt., Vol 4, No 3,  
1967, pp 190-193.  
\*ISI 6112

Caution Urged in Substituting Plastic for Metals,  
by M. Lucaci, 9 pp.  
ROMANIAN, per. Viata economica, Bucharest, 13 Feb  
1970, pp 3-4.  
JPRS 50107

The Diffusion of Some elements in Alpha and Gamma Iron, by F. Sirca, 11 pp.  
SERBO-CROATIAN, per. Rudarsko-Metallurski Zbornik, no 4, 1961, pp. 377-387.  
\*CFSTI TT 70-56048

Continuous Quality Control of Dwight-Lloyd Sinter Plants, by P. Coheur,  
SPANISH, per. Rev. Latinoam (IIAPA) Sid., Vol 9,  
No 3, 1969, pp 25-32.  
\*ISI 7378

Fracture in Glass From Spherical Indenters, by  
Nils Lundborgs. 28 pp.  
SWEDISH, rpt, Brott i Glas vid Intryckning av Stalkula, 4 Nov 1968.  
\*NASA TT F-12,750

Development of Iron Ore Products for the Swedish Market, by P. G. Kihlstedt,  
SWEDISH, per. Jernkon. Ann., No 8, 1969,  
pp 373-399.  
\*ISI 116

Scientific  
Mathematical Sciences

Statistical Analysis of an Extremal Two-  
Pattern Correlation System, by  
V. V. Entushevskiy, V. P. Tarasenko. 10 pp.  
RUSSIAN, rpt, AI SSSR. Otdeleniye Ekonomiki i Protsessov Upravleniya. Analiz i Sintez Avtomaticheskogo Upravleniya, 1967, pp 175-224.  
AIR/PTD/MT-24-250-01

Algebraic Method of Diagram Representation of the State of Multicomponent Systems, by  
O. S. Ivanov. 9 pp.  
RUSSIAN, per. Izv. Akad. Nauk SSSR, Metall.,  
No 1, 1969, pp 204-209.  
\*NASA TT F-12,772

A Parametron Mixer, by V. M. Yurkevich, 9 pp.  
RUSSIAN, per. Izvestiya VUZ., Vol 11, No 31, 1968  
pp 267-274.  
ACSI J-7710  
FSTC-HT-23-154-70

Synthesis of a Guiding Mechanism for Electric Locomotive Pathographs, by V. V. Solomin.  
RUSSIAN, per. Izvestiya VUZ, Mashinostroyeniye, No 11,  
pp 5-7.  
Dept of Navy APL/JHU T-2405

Contribution to the Problem of Approximating Functions by De La Valee-Poussin Means, by Yu. M. Shmandir.  
RUSSIAN, per. Izvestiya VUZ, Matematika, No 5(84),  
1969, pp 85-98.  
Dept of Navy APL/JHU T-2404

Future of Applied Mathematics Discussed,  
by B. Gnedenko, 17 pp.  
RUSSIAN, per. Moscow, Nauka i Zhizn', Moscow,  
No 1, 1970, pp 42-47, 71.  
JPRS 50198

Systems of Quasilinear Equations and their Applications to Gas Dynamics, by B. L. Rozhdestvenskiy,  
N. N. Yanenko, 48 pp.  
RUSSIAN, bk, Sistemy Kvazilineynykh Uravneniy i ikh Prilozheniya k Gazovoy Dinamike, 1968,  
pp 407-435.  
AEC/UCRL-Tr-10446-70

Table of Characteristic Indices for Mathieu Equations, by T. D. Kuznetsova, et al.  
RUSSIAN, bk, Tablitsy Kharakteristicheskikh Pokazateley dlya Uravneniy Tat'ye, 1969, 69 pp.  
\*NASA TT F 12,985

Limit Distributions of Some Functionals of a Stationary Gaussian Process, by Yu. M. Ryzhov. RUSSIAN, per, Teoriya Veroyatnostey i ee Primeneniya Vol 14, No 2, 1969, pp 236-249. Dept of Navy APL/JHU T-2401

Automotive Engine Construction, Design, Testing and Operation, by V. L. Buzanin, et al. 246 pp. RUSSIAN, bk, Avtomob. Mashiny Konstrukts. Tekhnol. Eksploataatsiya, 1968, pp 1-171. NACA TT F-12,382

Characteristics of Excursions Beyond a High Level by a Gaussian Process and its Envelope, by Yu. K. Relyayev, V. P. Nosko. RUSSIAN, per, Teoriya Veroyatnostey i ee Primeneniya Vol 14, No 2, 1969, pp 302-314. Dept of Navy APL/JHU T-2403

Elimination Brick Production Defects Examined, by A. Fodorov, 10 pp. RUSSIAN, per, Eksploataatsiya Sovetskoy Stroyki, Kiev, No 2, 1969, pp 26-27. JPRS 50069

Extremal Problems on the Geometric Theory of Functions, by E.G. Goluzina 225 pp. RUSSIAN, per, Trudy AN SSSR Matematicheskoy Inst. vol 94, 1968 pp.1-145. ETC-AD-692-805

Industrial Accident Prevention Measures Stressed, by R. A. Gadzhiev, 5 pp. RUSSIAN, per, Energetik, Moscow, No 10, 1969, pp 1-3. JPRS 50042

Calculation of a Derivative on the Basis of Discretely Arriving Information, by V. N. Sulitskiy. RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 9, No 3, 1969, pp 500-508. Dept of Navy APL/JHU T-2400

Gas Pipeline System of the North Described, by A. K. Dertsakyan, A. A. Al'tshul', 9 pp. RUSSIAN, per, Gazovaya Promyshlennost', Moscow, No 11, 1969, pp 13-16. JPRS 50188

Stochastic Approximation of Largest Nonresponse Dosage, by H. Harders, 8 pp. GERMAN, per, Metrika, V., Vol 11, No 2, 1966, pp 106-114. AEC/UCRL-Tr-10438-69

Hydraulics and its Applications on Aircraft, by B. B. Nekrasov. 393 pp. RUSSIAN, bk, Gidravlika i Yeye Primeneniye na Lotatel'nykh Apparatakh, 1967, pp 1-368. AIR/FTD/MT-23-242-69

Numerical Stability of Three-Dimensional Boundary Layer Solutions, by E. Krause, E. H. Bothmann, 8 pp. GERMAN, per, Z Angew Math Mech, Vol 48, 1968. AEC/SC-T-69-1048

Silting of the Rybinsk Reservoir, by N. A. Zinchenko and V. P. Kirdin, RUSSIAN, per, Inform Byull-Inst Biol Vnut Vod., No 2, 1968, pp 35-38. NLL Ref: 9024.912 (1231)

Mechanical, Industrial, Civil & Marine Engineering

Analysis of a Very Long Ring-Reinforced Cylindrical Shell, by D. A. Royak, RUSSIAN, per, Inzh. Zh. Mekh. Tverdogo Tela., No 3, 1968, pp 158-160. NLL Ref: 9022.401 (746-314)

Stability of High Speed Rotors With Sliding Bearings, by S. I. Sergeyev. 18 pp. RUSSIAN, bk, Apparaty i Mashiny Kislorodnykh i Kriogennykh Ustanovok, 1968, pp 156-171. NACA TT F-12,718

Heat Exchange Crisis During Boiling of a Flow of Water in a Channel, by Kruzhilin, G. N.; Labuntsov, D. A. 16 pp. RUSSIAN, per, Izvestiya. AN SSSR. Energetika i Transport, No 3, 1969, pp 66-69. AIR/FTD/MT-24-309-69

"Theory of Resistance of a Ship During Motions in Waves", by Mashkind.

RUSSIAN, per, Izvestiya AN SSSR, OTN Mekhanika i Mashinostroyeniye, No 7, 1959, pp 46-56  
\*Dept of Navy/NERDC

Conjugated Problem of Heat Exchange and Radiant Heat Exchange Availability Near the Free Surface, by L. I. Kudryashov, et al.

RUSSIAN, per, Izvestiya VUZ Aviatzionnaya Tekhnika, No 1, 1969, pp 77-84.  
\*NASA TT F 12,981

Problems of Investigation of Composite Gyromotors Accelerated by Solid-Propellant Boosters, by Yu. M. Kravchenko, 10 pp.

RUSSIAN, per, IVUZ Priborostroyeniye, Vol 10, No 12, 1967, pp 57-62.  
ACSI J-7827  
FSTC/HT-23-460-70

Stability and Free Vibrations of Thin Cylindrical and Conical Shells of a Circular Cross Section Under Various Boundary Conditions, by L. G. Aganov, A. V. Sachnikov, 25 pp.  
RUSSIAN, per, Kazan. Universitet. Issledovaniya po Teorii Plastin i Obolochek, No 2, 1964, pp 111-126  
AIR/FTD/HT-23-334-69

Gorkiy Automobile Plant Improving Production, by F. D. Chinenko, 7 pp.  
RUSSIAN, per, Mashino-Stroitel', Moscow, No 11, 1969, pp 2-4.  
JPRS 49915

Soviet Mechanized Construction Tools Described, by A. A. Libman, 9 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'stva, Moscow, No 12, 1969, pp 24-27.  
JPRS 49955

Use of Helicopters in Construction Described, by A. A. Zakharov, 5 pp.  
RUSSIAN, per, Montaznyye i Spetsial'nyye Raboty v Stroitel'stve, Moscow, No 12, 1969, pp 5-7.  
JPRS 50143

Methods of Loading Ships Under Winter Conditions, by L. Ivanov, 5 pp.  
RUSSIAN, per, Morskoy flot, Moscow, No 12, Dec 1964, pp 24-25.  
JPRS 50194

Marine Multi-Step Photometer-Transparency Meter, by G. G. Neumin.

RUSSIAN, per, Optical Mechanical Industry, No 6, 1968, pp 31-36.  
\*Dept of Navy NavShips Tr No 1222

Organization of Industrial Combines Outlined, by V. Byalkovskaya, A. Tikhomirova, 8 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 12, 1969, pp 60-66.  
JPRS 50156

Identification of Metal-Nonmetal Alloys, by A. I. Amosov and V. I. Gerasimov.  
RUSSIAN, per, Iskustv. Met., Vol 3, No 3, 1969, pp 30-31.  
\*Library 20.4.1 (74-30.7)

Motor Vehicle Plant Specialization Fits Brags, by I. Kiselev, 5 pp.  
RUSSIAN, np, Travda, Moscow, 3 Dec 1969, p 2.  
JPRS 50118

Building a Dam by Blasting, by G. I. Pokrovskiy, 10 pp.  
RUSSIAN, per, Damoda, Vol 58, No 10, 1968, pp 74-77.  
AEC/UCRL-Tr-10440-70

Preparation for Winter Repairs Urged, 7 pp.  
RUSSIAN, per, Remontny Transport, Moscow, No 9, Sept 1969, pp 1-3.  
JPRS 50183

Aviolar Tractor Plant Growing, by L. Ibrayev, 5 pp.  
RUSSIAN, per, Sotsialisticheskaya Industriya, Moscow, 4 Jan 1970, p 1.  
JPRS 49915

Scientific  
Mechanical-Industrial Units  
Machine Engineering Control

Scientific  
Mechanical-Industrial Units  
Machine Engineering Control

"Theory of Resistance of a Ship During Motions in Waves", by Haskind,  
RUSSIAN, per, Izvestiya AN SSSR, OTN Mekhanika i Maschinostroyeniye, No 2, 1959, pp 46-56.  
\*Dept of Navy/NSRDC

Conjugated Problem of Heat Exchange With Radiant Heat Exchange Availability Near the Plate Surface, by L. I. Kudryashov, et al.  
RUSSIAN, per, Izvestiya VUZ Aviatsionnaya Tekhnika, No 1, 1969, pp 77-84.  
\*NASA TT F 12,981

Problems of Investigation of Composite Gyromotors Accelerated by Solid-Propellant Boosters, by Yu. M. Kravchenko, 10 pp.  
RUSSIAN, per, IVUZ Priborostroyeniye, Vol 10, No 12, 1967, pp 57-62.  
ACSI J-7827  
FSTC/HT-23-460-70

Stability and Free Vibrations of Thin Cylindrical and Conical Shells of a Circular Cross Section Under Various Boundary Conditions, by L. G. Agosonov, A. V. Sachenkov. 23 pp.  
RUSSIAN, per, Kazan. Universitet. Issledovaniya po Teorii Plastin i Obolochek, No 2, 1964, pp 111-126  
AIR/FND/HT-23-334-69

Gor'kiy Automobile Plant Improving Production, by F. D. Chinchenko, 7 pp.  
RUSSIAN, per, Mashino-Stroitel', Moscow, No 11, 1969, pp 2-4.  
JPRS 49915

Soviet Mechanized Construction Tools Described, by A. N. Libman, 9 pp.  
RUSSIAN, per, Mekhanizatsiya Stroitel'stva, Moscow, No 12, 1969, pp 24-27.  
JPRS 49955

Use of Helicopters in Construction Described, by N. M. Makarov, 5 pp.  
RUSSIAN, per, Montazhnyye i Spetsial'nyye Raboty v Stroitel'stve, Moscow, No 12, 1969, pp 5-7.  
JPRS 50143

Methods of Docking Ships Under Winter Conditions, by L. Ivanov, 5 pp.  
RUSSIAN, per, Morskoy Flot, Moscow, No 12, Dec 1969, pp 24-25.  
JPRS 50104

Marine Multi-Step Photometer-Transparency Meter, by G. G. Neumin.  
RUSSIAN, per, Optical Mechanical Industry, No 6, 1968, pp 31-36.  
\*Dept of Navy NavShips Tr No 1222

Organization of Industrial Combines Outlined, by V. Byalkovskaya, A. Tikhomirova, 8 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 12, 1969, pp 60-66.  
JPRS 50156

Intensification of Metal-powder Rolling, by G. I. Aksenov and V. P. Revyagin,  
RUSSIAN, per, Porosh. Met., Vol 9, No 3, 1969, pp 32-37.  
ILL Ref: 9022.401 (740-209)

Motor Vehicle Plant Specialization Hits Snags, by I. Kiselev, 5 pp.  
RUSSIAN, np, Izvestiya, Moscow, 3 Dec 1969, p 2.  
JPRS 50118

Building a Dam by Blasting, by G. I. Pokrovskiy, 10 pp.  
RUSSIAN, per, Priroda, Vol 58, No 10, 1968, pp 74-77.  
AEC/UCRL-Tr-10440-70

Preparation for Fleet Winter Repairs Urged, 7 pp.  
RUSSIAN, per, Rechnoy Transport, Moscow, No 9, Sept 1969, pp 1-3.  
JPRS 50183

Yavlodar Tractor Plant Growing, by S. Ibrayev, 5 pp.  
RUSSIAN, per, Sotsialisticheskaya Industriya, Moscow, 4 Jan 1970, p 1.  
JPRS 49915

Sugar Plant Operates Year-round in Off Season, 5 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow,  
10 Jan 1970, p 1.  
JPRS 44621

Reforms in Soviet Coal Industry Described,  
by B. Bratchenko, 6 pp.  
RUSSIAN, np, Sotsialisticheskaya Industriya,  
Moscow, 17 Feb 1970, p 2.  
JPRS 50184

Modern Dock Structures for Large and Medium-Size  
Ships, by Gleb Anatol'yevich Vakharlovskiy,  
Petr Filippovich Kucheryavenko, 275 pp.  
RUSSIAN, bk, Sovremennyye Dokovyye Sooruzheniya  
dlya Krupnykh i Srednikh Sudov, Leningrad,  
1968, 255 pp.  
JPRS 50078

Critical Situation at the Soligorsk Potassium  
Fertilizer Combine Construction Site, by  
P. Podkurov, 5 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, Moscow,  
24 Oct 1969, p 2.  
JPRS 50153

Comprehensive Development of Oil Deposits Urged,  
by A. Zartsev, 5 pp.  
RUSSIAN, np, Stroitel'naya Gazeta, Moscow, 13 Feb  
1970, p 3.  
JPRS 50141

Rational Cutting-Out of Hull Components,  
by N. N. Volkov,  
RUSSIAN, per, Sudostroenie, No 11, 1968,  
MIL Ref: 9022.005

An Automated Anchor Gear, by E. G. Drabkin  
and L. I. Khmelev,  
RUSSIAN, per, Sudostroenie, No 1, 1969.  
MIL Ref: 9022.005 (3104)

Theory and Design of Turbocompressors, by  
K. P. Seleznev, Yu. S. Podobuyev, et al.  
43 pp.  
RUSSIAN, bk, Teoriya i Raschet Turbokompressorov,  
1966, pp 1-45.  
AIR/FTN/MT-24-190-69

Research Methods, Equipment and Accuracy  
of Determinations of Water Supply in  
Snow Cover, by A. K. Vershina, et al  
180 pp.  
RUSSIAN, per, Trudy Gosudarstvennaya  
Gidrologicheskii Inst. no 178, 1969  
\*CFSTI TT 70-50093

Investigation of Multielement Air Thermal Converters,  
6 pp.  
RUSSIAN, per, Trudy Institutov Goskomiteta,  
Issue 82, (142), 1965, pp 112-115.  
Dept of Navy NIC Trans 3022

Substantiation of Requirements for the Purity  
of the Face Surfaces of Components Serving  
for the Assembling of Instrument Ball-bearing  
Supports, by Yu. K. Laptsev, 13 pp.  
RUSSIAN, rpt, Trudy Moskovskaya Konferentsiya  
Molodykh Uchenykh Ist. 1964: Osnovnye Problemy  
Mashinostroyeniya, 1967, pp 166-177.  
AIR/FTD/MT-23-322-69

Mechanization and Automation of Labor-Consuming  
Processes in the Fishing Industry, by A. V. Terent'ev.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966.  
\*Dept of Interior  
BCF/OFF

Drift Net Hauling Device, by S. S. Torban.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 9-17.  
\*Dept of Interior  
BCF/OFF

Winch with a Coiler for Hauling Beach Seines and  
Coiling Ropes, by S. S. Torban.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 19-28.  
\*Dept of Interior  
BCF/OFF

Experience and Prospects in the Application of  
Hydraulic Drives in the Fishing Units, by S. S. Torban  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 29-38.  
\*Dept of Interior  
BCF/OFF

Mechanized System for Catching and Preliminary  
Processing of Mussels on Board a Middle Seiner in  
the Black Sea, by A. V. Terent'ev.  
RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 39-51.  
\*Dept of Interior  
BCF/OFF



Instrument Measuring Hydrodynamical Drag of the Fishing Gear, by I. S. Tiukhtiyayev.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 53-60.  
 \*Dept of Interior  
 BCF/OFF

Study of Strain in the Branch Lines of Drift Nets, by S. I. Poluliak.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 61-65.  
 \*Dept of Interior  
 BCF/OFF

Hydraulics in the Mechanized Processing of Herring on Board a Fishing Vessel, by A. V. Terent'ev.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 69-78.  
 \*Dept of Interior  
 BCF/OFF

Hydraulics in the Mechanized Loading of Salted Herring in the Fishing Vessels, by A. V. Terent'ev.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 93-103.  
 \*Dept of Interior  
 BCF/OFF

Automatic Generation of Smoke by Smoke Generator PSM by I. M. Marshak.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 145-157.  
 \*Dept of Interior  
 BCF/OFF

Study of Operational Properties in the Smoke Generator by M. V. Popov.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 159-162.  
 \*Dept of Interior  
 BCF/OFF

Methods of Comparative Trials of Continuous Conveyor Refrigerators, by A. B. Barsel'.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 163-173.  
 \*Dept of Interior  
 BCF/OFF

Methods on Assessment of the Level of Mechanization and Automation in the Production Processes of the Fishing Industry, by A. V. Terent'ev.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 185-198.  
 \*Dept of Interior  
 BCF/OFF

Principles in the Distribution of Labor in the Mechanized Beach Seining in the Caspian Sea, by S. S. Torban.  
 RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 199-206.  
 \*Dept of Interior  
 BCF/OFF

Some Problems in the Kinematics of Cam-Gear-Lever Mechanisms by L. B. Maysyuk, 14 pp  
 RUSSIAN, rpt, Trudy Vsesoyuznogo Soveshchaniya Po Osnovnym Problemam Teorii Mashin i Mekhanizmov, 4th, Moscow, 1966, pp 62-71  
 AIR/FTD/HT-23-650-69

On Automation of Machine Tools, by A. A. Milgromin.  
 RUSSIAN, per, Ukrainske Ministerstvo Vsesoyuznogo Spetsial'nogo Otdeleniya, Prilozheniya, No 3, 1967, pp 13-139  
 AIR/FTD/HT-23-650-69

'Pure,' 'Developed' Industrial Branches Analyzed, by M. Fidler, 15 pp.  
 RUSSIAN, per, Vestnik Statistiki, Moscow, Sept 1969, pp 32-40.  
 JPRS 50156

Method of Studying the Heat Resistance of Structures With Heat-Protection Coatings, by G. N. Tret'yachenko. 5 pp.  
 RUSSIAN, bk, Vsesoyuznoye Nauchno-Tekhnicheskoye Soveshchaniye po Voprosam Prochnosti Materialov i Konstruktivnykh Elementov pri Vysokikh Temperaturakh, 4th, Kiev, Termoprochnost' Materialov i Konstruktivnykh Elementov Materialov, 1967, pp 509-512.  
 AIR/FTD/HT-23-12-69

Mechanism of the Phosphorus-Reduction in the Formation of Nickel-Phosphorus Coating, by E. M. Gorbunova, and A. A. Nikiforova,  
 RUSSIAN, per, Zashch. Met., Vol 5, No 2, 1969, pp 195-200.  
 ILL Ref: 9022.401 (746-307)

Influence of Sensitization and Activation Conditions on the Process of Electroless Nickel Deposition on Non-Metallic Metals, by T. N. Khoperiya,  
 RUSSIAN, per, Zashch. Met., Vol 5, No 2, 1969, pp 201-205.  
 ILL Ref: 9022.401 (746-307)

Scientific  
Mechanical-Industrial, Civil  
Marine Engineering (Contd)

Supplying the Fishing Fleet with New Boats, 5 pp.  
BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 3,  
1969, pp 13-14.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 17  
On Loan

Ultrasonic Spot Welding, by Heng-  
yuan Chao, Hwai-chiang Li. 12 pp.  
CHINESE, rpt, Sheng Hsueh Hsueh Pao,  
Vol 2, No 1, 1965, pp 28-32  
AIR/FTD-HT-23-1138-68

Protection Against Invasion by Foreign  
Materials in Water Pipes, 11 pp.  
DUTCH, per, Keuringsinstituut voor Water-  
leidingartikelen, 1969  
\*USDC/NBS TT 70-50086

Design of Prestressed Concrete Reactor Vessels,  
The Double-Layer Process, by Roger Lacroix,  
52 pp.  
FRENCH, per, Ann Inst Tech Batiment Trav Pub,  
22 No 261, Sept 1969, pp 1403-1431.  
AEC/ORNL-Tr-2250-70

Process and Devices for the Construction of  
Projection Nozzles of Sandblasting Machines, 5 pp.  
FRENCH, per, Brevet D'Invention, No 513,  
30 Oct 1920, p 375.  
ACSI J-8058  
ID 2204003370

A Method of Contact Analysis for Wildhaber-  
Novikov Gearing with a General Choice of Axes.  
III Contact Analysis of W-N Type Gearing with  
Intersecting Axes, by L. -J. Cloutier and  
J. -V. Tordion,  
FRENCH, per, Bull Soc d'Etude de l'indust de l'  
Engrenage, No 53, 1967, pp 3-28.  
NLL Ref: 8732 (TT-1336)

Iron and Cadmium Electrodes in Alkaline Accumulators  
by J. P. Harivel and J. F. Laurent,  
FRENCH, per, Electrochim Acta, Vol 13, 1968,  
pp 2229-2236.  
NLL Ref: 9022.401 (746-320)

The Japanese Ship MUTSU/Nuclear, 6 pp.  
FRENCH, per, Journal de la Marine  
Merchande, 15 Jan. 1970, pp. 140-142.  
Department of Commerce  
Maritime Administration

Scientific  
Mechanical-Industrial, Civil  
Marine Engineering (Contd)

Shipbuilding in the United States, 17 pp.  
FRENCH, rpt, Lecture Before the French Naval Academy,  
24 October 1969.  
Dept of Navy NIC Trans 3007

Methods of Forecasting the Vibrations of a Linear  
Structure Subjected to an Eventful Excitation,  
by Alain Bourguin. 16 pp.  
FRENCH, rpt, CNERC-TP-703  
NASA TT F-12,775

Long-Term Deflections of Prestressed Concrete  
Bridges Due to Cyclic Creep under Traffic Loading,  
by Z. P. Bazant,  
GERMAN, per, Beton- und Stahlbetonbau, Vol 68,  
No 12, 1968, pp 262-265.  
NLL Ref: 9196 (1491)

Load Dependence of Stability and Control Efficiency  
of a Multiloop Live-Steam Temperature Control  
System for a Drum-Type Boiler, by H. Untehauer,  
GERMAN, per, Brenn. Wärmkraft, Vol 2, No 1,  
1968, pp 463-469.  
NLL Ref: 9022.09 (5181)

The Application of Heat-Resistant Materials in  
Aircraft Power Plants, by D. Hannen and  
H. Mathesius,  
GERMAN, per, DEW Tech. Ber., Vol 9, 1969,  
pp 335-343.  
NLL Ref: 9022.401 (746-281)

The Use of Heat-Resistant Steels and Alloys in  
Steam and Gas-Turbine Construction, by D. Hannen  
and P. Roth,  
GERMAN, per, DEW Tech Ber., Vol 9, 1969, pp 344-351.  
NLL Ref: 9022.401 (746-282)

"Kareta", a New Type of Flushing Mask, by  
Gerhard Haux, 7 pp.  
GERMAN, per, Drager-Hefte, No 267, April-June 1967.  
NAV/NIC/Tr-3006-70

100,000 Detector Pumps Sold: Drager Model 31  
Chemical Agent Detector Pump, 18 pp.  
GERMAN, per, Drager-Hefte, No 267, April-June 1967.  
NAV/NIC/Tr-3005-70

Scientific  
Mechanical-Industrial Cables  
Marine Engineering (Contd)

Scientific  
Mechanical-Industrial Cables  
Marine Engineering (Contd)

Testing the Influence of Shop-Primers on the Strength of Weld Joints in Shipbuilding, by O. Tolken, GERMAN, per. Hansa, Vol 100, No 10, 1967, pp 902-910.  
NLL Ref: 9022.005 (3095)

The Determination of Serviceability of Hatch Covers in Container Ships, by R. Alte, GERMAN, per. Hansa, Vol 100, No 10, 1969, May, pp 909-910.  
NLL Ref: 9022.005 (3113)

Tests with the IMG Lateral Thruster, by K. Meyne and S. Heinzel, GERMAN, per. Schiff u. Hafen, Vol 20, No 11, 1968, pp 747-753.  
NLL Ref: 9022.005 (3059)

A Shaft-Generator Installation for A. C. Ships: Description of the Installation, by W. Droste, GERMAN, per. Schiff u. Hafen, Vol 20, 1968, Dec.  
NLL Ref: 9022.005 (3080)

Resistance Investigation on a Model Series of Sea-Going Ships, in Shallow Water, by H. Schmidt-Stiebitz and G. Luthra, GERMAN, per. Schiff u. Hafen, Vol 21, No 8, 1969, pp 639-644.  
NLL Ref: 9022.065 (3143)

The Arrangement of Hatches and Hatch covers in General Cargo Ships, by R. Bauer, GERMAN, per. Seewirtschaft, Vol 1, No 1, 1969, pp 37-40.  
NLL Ref: 9022.065 (3118)

Testing of Plain Carbon and Low Alloy Steels for their Behaviour in Relation to Inter-crystalline Stress Corrosion Cracking, GERMAN, per. Stahl Eisen Prüfblatt, 2nd Edit. May 1961, pp 1660-1661.  
NLL Ref: 9022.06 (6231)

Optimum Primary Losses in Axial Cascades and Axial Stages of Flow Machines, 56 pp.  
GERMAN, per. VDI - Forschungsheft, No 535, 1969, pp 1-27.  
ACSI J-7991  
FSTC/HT-23-748-70

Assessment of Roller Bearing Greases for High Stresses, by E. Knoll and P. Kapp, GERMAN, per. VDI Zeit., Vol 10, No 19, July 1967, pp 634-637.  
NLL Ref: 9022.065 (1157)

Various Experimental Problems and Reinvestigation of Experimental Results Relative to the Heat Treatment of Carbon Under High Pressure, by Michio Inagaki, Kanichi Kamiya, 19 pp.  
JAPANESE, per. Kogyo Kagaku Zasshi, Vol 71, No 5, 1968, pp 652-657.  
AEC/ORNL-Tr-2262-70

Principal Hydraulic Jet Parameters and Stress Distribution in Coal Seams during Hydraulic Crushing, by Zenjiro Hokao, 13 pp.  
JAPANESE, per. Nippon Kogyo Kaishi, Vol 81, No 930, 1965, pp 23-28.  
AEC/ORNL-Tr-2269-70

On the Transverse Strength of Oil Tankers with Side Stringers, by R. Nagamoto, JAPANESE, per. Seibu Zosenkai Kaiho, Feb. 1969.  
NLL Ref: 9022.065 (3102)

Examinations on the Transverse Strength of Large Tankers, by T. Okabe, JAPANESE, per. Seibu Zosenkai Kaiho, Vol 37, Feb., 1969.  
NLL Ref: 9022.065 (3101)

On the Design of Fibreglass-Reinforced Plastic Ship-Hull Structures. (1st Report), by K. Takenara and I. Kimpura, JAPANESE, per. Zosen Kyokai Ronbunshu, Vol 123, June 1968.  
NLL Ref: 9022.065 (3078)

New Baltic Cutter for Polish Fishery, by B. Pradzynski, POLISH, per. Budownictwo Okretowe, Vol 14, No 8, 1969, pp 266-270.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 58  
On Loan

Measurement Dynamics of Thermocouples, by D. Hofman, POLISH, rpt, Imeko-IV Warsaw DDR-160, 3-8 July 1967, pp 1-20.  
CEGB  
C.E. trans 4956

Source:  
 Title:  
 Author:  
 Date:

Source:  
 Title:  
 Author:  
 Date:

Further Development of the Pelagic Tuck Seines for 26.5-m and 23-m Long Cutters, by W. Niquet, H. Kemp, 6 pp.

POLISH, per, Seeverkehr, Vol 8, No 2, 1968, pp 80.  
 Dept of Interior  
 BCF/OFF  
 A-35-Jan 1970-No 151  
 On Loan

Conversion of the Trawler "Kwisa" into a Trawler-Seiner and Possibilities of Starting Ring-Net Fishing in Polish Sea Fisheries, by J. Strybel, POLISH, per, Technika i Gospodarka Morska, Vol 19, No 7(217), 1969, pp 298-301.

\*Dept of Interior  
 Bureau of Commercial Fisheries  
 Office of Foreign Fisheries  
 A-34-Dec 1969-No 128

Using the Analysis of Total Fatigue Limit for the Evaluation of Anti-Fatigue Improvement Effects, by B. Janczewicz, 14 pp.  
 POLISH, per, Technika Lotnicza i Astronautyczna, No 7, 1968, pp 4-8.  
 AIR/FTD/HT-23-390-69

Quantitative Investigations of Fatigue Endurance, 24 pp.  
 POLISH, per, Technika Lotnicza i Astronautyczna, No 7, 1968, pp 9-17.  
 AIR/FTD/HT-23-390-69

Integration Must Precede Petrochemical Industry, by B. Vesovic, 10 pp.  
 SERBO-CROATIAN, per, Vesnik Jugoslovenske Investicione Banke, Belgrade, Oct 1969, pp 6-8.  
 JPRS 50107

The Influence of Speed on Costs of Transporting Cargo by Ship, by I. Jung, SWEDISH, per, Teknisk Tidskrift, No 125, Nov 17, 1945  
 NLL Ref: 9022.065 (3088)

Side Forces and Sidewise Movements During Launching, by B. Aberg, SWEDISH, per, Teknisk Tidskrift, Feb 20 1969.  
 NLL Ref: 9022.065 (3075)

Further Development of the Pelagic Tuck Seines for 26.5-m and 23-m Long Cutters, by W. Niquet, H. Kemp, 6 pp.

POLISH, per, Seeverkehr, Vol 8, No 2, 1968, pp 80.  
 AIR/FTD/HT-23-390-69

Main Parameters of the Automatic Fish Smoking Process, by I. M. Marshak, RUSSIAN, per, Trudy VNIRO, No 59, 1966, pp 107-143.  
 \*Dept of Interior  
 BCF/OFF

Characteristics of Gunner Testing Equipment, by Hui ya Huang, 7 pp.  
 CHINESE, rpt, Sheng Hsueh Hsueh Pao, Vol 2, No 4, 1965, pp 39-40  
 AIR/FTD/HT-23-1138-68

Application of Electret Microphones for Measurement of Pressure Fluctuations on Aerodynamic Profiles, by Bernard Baerd, et al. FRENCH, per, La Recherche Aerospatiale, Nov-Dec 1969, pp 54-56.  
 \*NASA TT F 13,004

Note on the Convergence of Methods of Conjugate Gradients, by E. Polak, G. Ribieu. FRENCH, per, Revue Francaise d'Informatique et de Recherche Operationnelle, Vol 3, No 16, 1969, pp 35-43.  
 Dept of Navy APL/JHU T-2395

Characterization of Picture Sharpness in Photographs, by R. Reuther, J. Rudolph, 25 pp.  
 GERMAN, per, Zeitschrift fur Wissenschaftliche Photographie, Photophysik und Photochemie, Vol 61, No 7-9, 1967, pp 125-144.  
 AIR/FTD/HT-23-225-69

Time Analyzer Using Binary Scalers, by Hasegawa Kenichi, 12 pp.  
 JAPANESE, per, Nippon Genshiryoku Gakkaishi, No 10, 1968, pp 313-318.  
 AEC/NSJ-Tr-150

Method of Preparing Resistance Spot-Welded Adhesive Bonds Using Thermosetting Adhesives, by Henryk Zatyka, Janusz Garscis, 39 pp.  
 POLISH, per, SOURCE UNKNOWN, pp 14-29.  
 ACSI J-8046  
 FSTC-HT-23-671-70

Scientific  
Methods & Equipment Control

Iceland Cutter for Fishing With the Circular Moored Net From the Elbe Marf, by W. Janckel, 11 pp. POLISH, per, Seeverkehr, Vol 8, No 2, 1968, pp 66-68.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 29  
On Loan

Scientific Management and Planning Methods in Industrial Sea Fisheries, by S. Lewenstein, POLISH, per, Technika i Gospodarka Morska, Vol 19, No 6(216), 1969, pp 264-267.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 123

Missile Technology

A Digital Computer for Measuring Airborne Vehicle Motion Parameters, by A.Ye. Shirochenskiy, 11 pp. RUSSIAN, per, Trudy Moscow. Aviatsonnyy Institut, No 179, 1968, pp 87-95.  
AIR/FTD/MT-23-429-69

7th Report on Navigation, by T. Zech, A. Waither, 17 pp GERMAN, rpt, Institut Fur Praktische Mathematik Technische Hochschule Darmstadt, 1941, pp 1-16  
AIR/FTD-HT-23-297-69

Navigation, Communications, Detection  
& Countermeasures

Monthly Forecasts of Radiowave Propagation No. 1 RUSSIAN, per, Akademiia Nauk SSSR Inst. Zem. Magnet. Ionosfery i Raspro Radiovoln. Jan 1970, pp. 3-48, p. 90  
\*CPSTI TT 70-50070

The Gyroscopic Effect: its Manifestations and Uses, by V. A. Pavlov, 167 pp. RUSSIAN, bk, Gidroskopicheskiy Effekt Yego Proyavleniya i Ispol'zovaniye, 1967, pp 1-279.  
AIR/FTD/MT-23-228-69

Scientific  
Navigation, Communications, Detection  
& Countermeasures Control

Range-Measuring Digital Servo-Radar System, by D. N. Panov, T. A. P'yavchenko. RUSSIAN, per, Izv. VUZ. Radiotekhnika, Vol 12, No 5, 1969, pp 480-487.  
Dept of Navy APL/JHU T-2399

Fixed Submarine Detection Systems of the U. S. Navy, by A. L. Prostakov, 5 pp. RUSSIAN, per, Morskoy Sbornik, No 1, 1970, pp 95-98.  
Dept of Navy NYC Trans 3018

Nationwide Television Creates Local Problems, by Yu. Koginov, 5 pp. RUSSIAN, np, Pravda, Moscow, 8 Feb 1970, p 3.  
JPRS 50183

Automatic Marine Polarimeter & Experience in its Application, by M. I. Kaygorodov. RUSSIAN, bk, Radiophysical Methods in Studies of Arctic and Antarctic, 1968, pp 208-216.  
\*Dept of Navy NavShips Tr No 1226

The "Raskat" Port Radar, by M. I. Dubrovskiy, R. N. Chernyayev, 28 pp. RUSSIAN, per, Sudovozhdeniye i Svyaz, Vol 20, No 79 1962, pp 3-31.  
Dept of Navy NIC Trans 3013

Improvement of the Qualitative Characteristics of Video Tape Recorders, by V. L. Khavkin, 12 pp. RUSSIAN, per, Tekhnika Kino i Televideniya, No 2, 1967, pp 43-47.  
AIR/FTD/MT-24-363-69

Spatial Filtration of Images on the Image-Orthicon Target, by V. L. Lentsman, I. I. Tsukerman, 15 pp. RUSSIAN, per, Tekhnika Kino i Televideniya, No 4, 1968, pp 51-57.  
AIR/FTD/MT-24-345-69

Experimental Dependence Investigation of Image Identification Probability, by N. N. Krasil'nikov, G. A. Nozdrunkov, et al. 3pp RUSSIAN, per, Tekhnika Kino i Televideniya, No 2, 1969, pp 53-54.  
AIR/FTD/MT-24-04-70

Optical Theodolite, by P. I. Durnova,  
Ye. P. Zdobnikov, et al., 4 pp.  
RUSSIAN, Patent No. 210,921, 10 Mar 1967,  
1 p., pp 1-3.  
AIR/FTD/HT-23-180-69

Methods of Increasing Resolution in  
a Pulse Radar, by Wen-pin Ts'ao, 13 pp  
CHINESE, rpt, Tien Tzu Chi Shu, No 6,  
1964,  
AIR/FTD/HT-23-180-69

Receiving System for Transit Satellite Signals.  
FRENCH, per, Centre Spatial de Bretigny,  
Bulletin No 410 OPS/T, October 24, 1969.  
Dept of Navy APL/JHU T-2402

Minister Discusses New Telephone Equipment,  
(Africa), 7 pp.  
FRENCH, np, El Moudjahid, Algiers, 10 Feb 1970,  
p 3.  
JPRS 50017.

Insertion Contacts in Communications and Power  
Technology, by W. Merl, 18 pp.  
GERMAN, per, SOURCE UNKNOWN, pp 3-8.  
ACSI J-8047  
FSTC-HT-23-690-70

Report on Navigation, 9 pp.  
GERMAN, rpt, Institut Fur Praktische  
Mathematik Technische Hochschule  
Darmstadt, 1941, pp 1-10  
AIR/FTD/HT-23-298-69

#### Nuclear Science & Technology

Dynamics of the Radiation Belts of the Earth,  
by B. A. Tverskoy, 224 pp.  
RUSSIAN, bk, 1968.  
\*NASA TT F-635

Experimental Investigation of the Process of  
Electron-Photon Shower Generation at Energies  
Ranging from 20 to 300 MeV, by Z. Ogrzeval'skiy,  
Z. S. Strugal'skiy, 15 pp.  
RUSSIAN, rpt, JINR-P1-4562.  
AEC/ORNL-Tr-2257-70

Mechanism of Interaction of High and Ultra-high  
Energy Particles with Atomic Nuclei, by  
V. S. Barashenkov, K. K. Gudima, 10 pp.  
RUSSIAN, rpt, JINR-P2-4662.  
AEC/ORNL-Tr-2258-70

The Use of a Polarized Proton Target as a Neutron  
Polarizer, by V. I. Lushchikov, Yu. V. Taran,  
26 pp.  
RUSSIAN, rpt, JINR-P3-4409, 1969.  
AEC/BNL-Tr-295-69

Cryogenic High-Frequency Accelerating System for  
a Ringotron, by N. G. Anishchenko, A. S. Alekseyev,  
13 pp.  
RUSSIAN, rpt, JINR-P9-4722, 1969.  
AEC/SLAC-Tr-111-70

Some Problems of Using High-Temperature Organic  
Coolants, by O. A. Dibrov,  
RUSSIAN, per, Khim. Prom., Vol 25, No 6, 1968.  
NLL Ref: 6180.59 (2134)

Plasma Thermal Emission Energy Conversion,  
by Stakhanov, I. P.; Stepanov, A. S.; et al.  
RUSSIAN, bk, Plazmennoye Teplovoizmeneniye  
Preobrazovaniye Energii, 1968, pp 1-392.  
AIR/FTD/MT-24-374-69

Calculation of Interaction Energies and Confi-  
gurational and Excess Entropies in Solutions of  
Transition Metal Carbides, by R. A. Andriyevskiy,  
V. N. Zagriyazkin, 6 pp.  
RUSSIAN, per, Thermodynamics of Nuclear Materials,  
1967, pp 449-456.  
AEC/LASLUC/La-Tr-4211-70

The Protection of the Population From Radioactive  
Fallout, by A. K. Sudakov.  
RUSSIAN, per, Zashchita Naseleniya ot Radioaktivnykh  
Osadkov, 1969.  
\*ACSI J-8193  
ID 2204006070

Some Problems of Radiation Protection in Space  
Flights, Part III, by H. Swart, 9 pp.  
GERMAN, per, Astron Raumfahrt, Vol 5, No 2, 1967.  
AEC/ORNL-Tr-2253-69

Problems of Disposal of Radioactive Wastes in  
Germany, by H. Holtzem, J. Schwibach, 13 pp.  
GERMAN, per, Atomwirt, Vol 12, No 8/9, 1967,  
pp 413-417.  
AEC/ORNL-Tr-1841-70

Measurement of the Self-Diffusion Coefficients in Solids With Gaseous Isotopes, by R. Haul et al., 2 pp.  
GERMAN, per, J. Phys. Chem. Solids, 23, 1962, pp. 153-154.  
\*CFSTI TT 70-58082  
AVAILABLE FROM NBS ONLY

Experimental Investigation of the Dynamic Processes in Marine Boiling Water, by H. Kirchnermayer  
GERMAN, rpt, Kernenergieantriebe fur Handels-schiffe Munich, Verlag Karl Telemig KG, 1964,  
\*NASA TT F 12,938

Procedure for Preliminary Decontamination of Nuclear Fuels to be Processed, by Werner Bahr, 5 pp.  
GERMAN, patent, 1 184 503, 1964.  
AEC/ORNL-Tr-1881-70

Fisheries and Public Damage From Atomic Power -- A Proposal to Stop Radioactivity Contamination of Coastal Waters, by Makihara Kenji, 19 pp.  
JAPANESE, per, Kogai to Taisaku, Vol 4, No 4, 1969, pp 299-304.  
Dept of Interior  
BCF/OFF  
A-35-Jan 1970-No 154  
On Loan

Nondestructive Method for the Determination of the Ratio O/U in Sintered Pellets, by C. Ferro, S. Moretti, 7 pp.  
ITALIAN, rpt, Comitato Nazionale Ener Nucleare, RT/ENG(67)7.  
AEC/LASLUC/LA-tr-4160-70

First National Symposium of the Technical Use of Radioisotopes, 220 pp.  
POLISH, bk, Pierwsze Krajowe Sympozjum Zastosowan Izotopow w Technice, Rogow, 8-12 Czerwiec, 1960  
\*CFSTI TT 70-55081

#### Physics

Measurement of the Turbulence of Air Flows and Flows by the Optical-Diffusion Method, by P. P. P. A. G. 90 pp.  
RUSSIAN, rpt, AN SSSR. Energeticheskii Institut. Voprosy Turbulentnoi Potoke, Moscow, Izd-Vo AN SSSR, 1969, pp 70-144.  
\*CFSTI TT 70-55081

Investigation of Quality of Crystals Using Ruby as an Example, by S. V. Grun-Grzhinaylo, M. V. Klassen-Neklyudova, 20 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 5-19.  
AIR/FTD/MT-24-293-69

Exposure and Investigation of Dislocations in Crystals by Different Methods, by M. V. Klassen-Neklyudova, 24 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 19-41.  
AIR/FTD/MT-24-293-69

Determination of the Concentration of Cr<sup>3+</sup> in Rod Crystals of Ruby by Absorption Spectra, by S. V. Grun-Grzhinaylo, L. G. Chentsova, et al. 5 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 50-54.  
AIR/FTD/MT-24-293-69

Methods of Investigation of Heterogeneity in Indices of Refraction of Crystals, by I. N. Guseva, N. M. Melankholin, et al. 8 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 59-65.  
AIR/FTD/MT-24-293-69

Orientation of Crystals and Investigation of Their Optical Anomaly, by S. V. Grun-Grzhinaylo, T. N. Pogodina, 7 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 67-71.  
AIR/FTD/MT-24-293-69

Measurement of Internal Stresses in Rod Crystals of Corundum, by M. A. Chernysheva, 9 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 78-84.  
AIR/FTD/MT-24-293-69

Determination of the Value of Mutual Disorientation of Blocks in Crystals of Ruby by the Optical Method, by N. V. Glik. 11 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 84-92.  
AIR/FTD/MT-24-293-69

Differential Carolinometer With Thermal Bridge for Measurement of Energy of a Laser, by B. K. Sevast'yanov, I. Ye. Lifshits, et al. 7 pp.  
RUSSIAN, bk, AN SSSR. Institut Kristallografii. Rost Kristallov, 1968, pp 93-97.  
AIR/FTD/MT-24-293-69

Instruments for Measurement of Pulsed Light Energy, by V. P. Orskhova, B. K. Sevast'yanov, et al. 6 pp.  
RUSSIAN, bk, AN SSSR, Institut Kristallografii, Post Kristallov, 1968, pp 93-101.  
AIR/FTD/MT-24-293-69

The Injection of Particles into a Mirror Trap with an Increasing Field in the Mirrors Through a Magnetic Trap of Cusp Configuration, by K. D. Sinel'nikov, N. A. Khizhnyak, et al. 15 pp.  
RUSSIAN, bk, AN UKSSR, Magnitnyye Lovushki, 1965, pp 5-18.  
AIR/FTD/MT-23-539-68

A Supersonic Hydrogen Jet in a Vacuum, by V. B. Yufferov, V. A. Kovalenko, et al. 4 pp.  
RUSSIAN, bk, AN UKSSR, Magnitnyye Lovushki, 1965, pp 113-115.  
AIR/FTD/MT-23-539-68

Using Microwave Refraction to Determine the Spatial Density Distribution of a Plasma, by L. A. Dushin, V. I. Kononenko, et al. 12 pp.  
RUSSIAN, bk, AN UKSSR, Magnitnyye Lovushki, 1965, pp 179-188.  
AIR/FTD/MT-23-539-68

A Spectroscopic Investigation of the Interaction Between Beams of Charged Particles and a Plasma, by Ye. V. Lifshits, A. K. Berezin, et al. 16 pp.  
RUSSIAN, bk, AN UKSSR, Magnitnyye Lovushki, 1965, pp 207-221.  
AIR/FTD/MT-23-539-68

Linear Polyurethanes With Isocyanurate Cycles in Chain, by L. V. Stepanenko, A. G. Yakovenko, et al. 12 pp.  
RUSSIAN, rpt, AN UKSSR. Sintez i Fiziko-Khimiya Polimerov; Poliuretany, 1963, pp 14-23.  
AIR/FTD/MT-24-151-69

Suspension Factor in Two-Phase Streams, by A. K. Dyunin, 14 pp.  
RUSSIAN, per, Buletinul Institutului Politehnic, vol XII (XVI), no.1-2, 1966 pp. 367-373.  
CFST1 TT 69-53052

Numerical Methods in the Theory of Rarefied Gases, by V. P. Shedlovskiy.  
RUSSIAN, bk, Chislennyye Metody v Teorii Razrezhennykh Gazov, 1969, pp 183.  
\*NASA TT F 638

Interaction of a Strong High-Frequency Electromagnetic Field with Plasma, by V. P. Silin, 57 pp.  
RUSSIAN, rpt, Fizicheskii Institut im P. N. Lebedev, AN SSSR, 1969. Papers Presented at 8th Inter conf on Phenomena in Ionized Gases, Vienna, 27 Aug-2 Sept 1967.  
AEC/MATT-Tr-96-70

Influence of Weightlessness on the Diffusion Flames of Butyl Alcohol, by I. M. Abdaraginov.  
RUSSIAN, per, Fizika Goreniya i Vzryva, Vol 5, No 6, 1969, pp 184-189.  
\*NASA TT F 12,934

The Mechanism of Joint Formation in Solid-State Welding of Aluminum Oxide Ceramics With Niobium, by Ye. S. Karakozov, A. S. Kotelkin, 13 pp.  
RUSSIAN, per, Fizika i Khimiya Obrabotki Materialov, No 3, 1968, pp 123-129.  
Dept of Navy NRL Tr 1197

The Gas Dynamics of Two-Phase Media, by M. Ye. Deych, G. A. Filippov. 543 pp.  
RUSSIAN, bk, Gazodinamika Dvukhfaznykh Sred, 1966, pp 1-423.  
FTD/ HT-23-133-69

Production of Negative Particles by Pions with Energies of up to 70 GeV<sup>1</sup>, by Yu. E. Bushnin, Yu. P. Gorin, 13 pp.  
RUSSIAN, rpt, IFVE-SEF-69-18  
AEC/ORNL-Tr-2266-70

High Energy Internal Conversion Electrons Emitted from Sm<sup>150</sup> Gd<sup>158</sup> Nuclei in the (n,γ) Reaction, by Yu. N. Panin, V. I. Pelekhov, 7 pp.  
RUSSIAN, rpt, I. V. Kurchatov Atomic Energy Institute, 1969.  
AEC/BNL-Tr-306-69

Gamma-Ray Spectra Following Thermal Neutron Capture by Neodymium Isotopes, by L. V. Groshev, V. N. Dvoretzkiy, 13 pp.  
RUSSIAN, rpt, I. V. Kurchatov Inst of Atomic Energy, IAE-1489.  
AEC/LASLUC/LA-Tr-4063-70

Discontinuous Solutions in Problems of Nonlinear Heat Conduction, by V. V. Frolov.  
RUSSIAN, per, Inzhenerno-Fizicheskii Zhurnal Vol 17, No 7, 1969, pp 111-117.  
\*NASA TT F 12,930



Investigation of Heat Transfer During Boiling Employing Simulated Weak Gravitational Fields, by Yu. G. Kirichenko, et al.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal, Vol 17, No 8, 1969, pp 201-209.  
\*NASA TT F 12,940

Some Property Change in Pyrolytic SiO<sub>2</sub> After Thermal Treatment, by R.P. Kalnyaya, I. A. Fel'tyn', et al. 11 pp.  
RUSSIAN, per, Izvestiya AN LATSSR. Seriya Fizicheskikh i Tekhnicheskikh Nauk, No 3, 1969, pp 17-18.  
AIR/FTD/FTD-23-1-7

Experimental Determination of Emissivity of High-Temperature Gas Flows, by A. N. Rumynskiy, N. V. Cheresheva, 10 pp.  
RUSSIAN, per, Izvestiya Akademiy Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 6, 1968, pp 149-154.  
Dept of Navy NITC Trans 3019

The Indirect Method for Determining the Gas Flow Through the Inside Channel and Gas Temperature in Front of Double Flow Engine Turbine, by N. V. Pervyshin, et al.  
RUSSIAN, per, Izvestiya VUZ Aviatsionnaya Tekhnika, No 1, 1969, pp 93-98.  
\*NASA TT F 12,982

Generalization of Gradient Method of Heat Transfer Investigation for the Case of Arbitrary Dependence of Wall Material Heat Conductivity Coefficient on Temperature, by V. K. Shchukin, et al.  
RUSSIAN, per, Izvestiya VUZ Aviatsionnaya Tekhnika, No 1, 1969, pp 105-109.  
\*NASA TT F 12,983

Turbulent Flow Distribution Over Perpendicularly Arranged Flat Barrier, by Ye. A. Bulanov, et al.  
RUSSIAN, per, Izvestiya VUZ Aviatsionnaya Tekhnika, No 1, 1969, pp 115-118.  
\*NASA TT F 12,984

Calculation of Heat Exchange in Diathermal Systems with a Supercritical Boiling Regime, by Yu. P. Yanovlev.  
RUSSIAN, per, Izvestiya VUZ, Aviatsionnaya Tekhnika, No 2, 1969, pp 89-98.  
\*NASA TT F 12,974

Characteristics of Inertial-Gravitational Fields, by L. D. Raygorodskiy.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 7( 86), 1969, pp 97-103.  
\*NASA TT F 12,970

Photon Absorption and Emission from the Non-equilibrium Plasma of the Finite Volume in the Spectral Lines with the Doppler Broadening, by M. B. Chelnokov.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 9, 1969, pp 54-59.  
\*NASA TT F 12,975

Experimental Study of the Rarefied Gases Flow Between the Parallel Plates, by B. T. Prodnov.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 9, 1969, pp 105-111.  
\*NASA TT F 12,976

On Propagation of the Elastic Waves in the Piezosemiconductors, by V. V. Soroka.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 9, 1969, pp 129-130.  
\*NASA TT F 12,977

On Effective Selection of the Electrons from Plasma into Vacuum, by Yu. E. Kreindel', et al.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 9, 1969, pp 151-153.  
\*NASA TT F 12,978

On the Theory of the Ionization Losses of Fast Electrons. I, by A. S. Dolgov, et al.  
RUSSIAN, per, Izvestiya VUZ Fizika, No 9, 1969, pp 153-155.  
\*NASA TT F 12,979

A Random Electro-Magnetic Field and its Distribution at Wave Reflection from an Extended Rough Surface, by A. P. Zhukovskiy.  
RUSSIAN, per, IVUZ Radiofizika, Vol 12, No 10, 1969, pp 482-493.  
\*NASA TT F-12,898

On an Electro-Magnetic Field Arising from Air Ionization by a point Gamma Source in the Electro-Field of the Earth, by Yu. V. Gutop.  
RUSSIAN, per, IVUZ Radiofizika, Vol 12, No 10, 1969, pp 573-576.  
\*NASA TT F-12,899

One More Possible Method of Heavy Ion Acceleration, by N. I. Tarantin, 10 pp.  
RUSSIAN, rpt, JINR-P9-4555, 1969, pp 1-13.  
AEC/ANL-Tr-805-70

Effect of Ultrasound on Formation of Ionizing-Particle Tracks in a Liquid-Hydrogen Bubble Chamber, by V. A. Akulichev, L. R. Gavrilov, 17 pp.  
RUSSIAN, rpt, JINR-P13-4702, 1969.  
AEC/SLAC-Tr-110-70

Instability of Charged-Particle Beams in Plasma, by M. V. Nezhin, 87 pp.  
RUSSIAN, preprint, Kurchatov Institute of Atomic Energy, IAF-1882, 1969.  
AEC/UCLL-TR-10437-69

Quantum-Electronic Theory of Anomalous Conductors, by A. I. Gubanov, 295 pp.  
RUSSIAN, bk, Kvantovo-elektronnaya Teoriya Anomallykh Provodnikov, 1963, pp 1-250.  
AIR/ETD/EN-24-250-69

Study of the Magnetic Field Structure of the TOR-2 Stellarator, by M. A. Ivanovskiy, S. N. Popov, 17 pp.  
RUSSIAN, rpt, Order Lenin P. N. Lebedev Physics Inst, 1969.  
AEC/MAT-TR-97070

Basic Gamma Spectrometry of Natural Environments-Theory of Methods of Gamma Spectrometry and Geological-Geophysical Applications, by P.M. Kogan, 468 pp.  
RUSSIAN, bk, Osnovy Gamma-Spektrometrii Prirodnykh Sred..., 1969  
\*CFSTI TT 70-50092

Forced Vibrations of Laminated Orthotropic Cylindrical Shells, by V. V. Yemel'yanenko, et al.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 4 1969, pp 116-120.  
\*NASA TT F 12,961

Investigations of the Vibrations of a Cylindrical Shell Containing a Liquid, by V. S. Pavlovskiy  
RUSSIAN, per, Prikladnaya Mekhanika Vol 5, No 6, 1969, pp 27-36.  
\*NASA TT F 12,959

Cylindrical Shells of Minimum Weight Reinforced by Stringers of a Closed Profile, by A. S. Pal'chevskiy.  
RUSSIAN, per, Prikladnaya Mekhanika Vol 5, No 6 1969, pp 107-112.  
\*NASA TT F 12,960

Problem Concerning the Oscillations of a Thin Profile in Subsonic Flow Near a Rigid Boundary, by I. I. Yefremov.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 7, 1969, pp 119-121.  
\*NASA TT F 12,966

Iteration Systems of Computing the Stress of Thin Shells, by S. P. Gavelya.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 8, pp 42-49.  
\*NASA TT F 12,958

Experimental Investigations on the Vibrations of Cylindrical Shells Containing a Liquid, by V. I. Borisenko, et al.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 8, 1969, pp 57-62.  
\*NASA TT F 12,957

Investigations of the Dynamic Characteristics of a Solid Body with a Cylindrical Cavity Partially Filled with a Viscous Fluid, by V. A. Iudinovich.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 9 1969, pp 11-19.  
\*NASA TT F 12,953

Investigations of Supercritical Deformations of Ribbed Cylindrical Shells Subjected to Axial Compression, by A. A. Pryadko.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 9 pp 34-39.  
\*NASA TT F-12,954

Applications of Self-Similar Solutions for Boundary Layer Linearization Equations, by A. Sh. Dorfman, et al.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 9 pp 90-97.  
\*NASA TT F-12,955

Damping of Vibrations in Glassplastic Cylindrical Shells, by A. A. Bondorenko, et al.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 9 1969, pp 121-124.  
\*NASA TT F-12,956

Determining the Characteristics of Non-Linear Elements of Vibration Systems from Motion Analysis, by V. O. Kononenko, et al.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 10, 1969, pp 1-7.  
\*NASA TT F 12,962

Emissions of Two Cylinders Arranged in a Parallel Mode in a Viscous Medium, by V. N. Buyvol.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 10, 1969, pp 58-64  
\*NASA TT F 12,963

Certain Self-Similar Solutions for Problems Concerning an Intense Blast Through a Plate in a Supersonic Flow, by A. M. Antonov, et al. RUSSIAN, per, Prikladnaya Mekhanika, Vol 5, No 10, pp 111-114. \*NASA TT F-12,964

Laser Pulse Radiation of Nitrogen Atoms in An  $N_2$  He Mixture, 6 pp. RUSSIAN, per, Prikladnoy Spektroskopiy, Vol 9, No 5, 1968, pp 807-811. Dept of Navy NIC Trans 3010

Problems in Nonlinear Optics (Selected Chapters), by S. A. Akhmanov, R. V. Khokhlov. 170 pp. RUSSIAN, bk, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

On the Diffraction of Sound Waves by a Grating of Elastic Plates, by V. Ya. Izrael, et al. RUSSIAN, per, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

On the Diffraction of Sound Waves by a Grating of Elastic Plates, by V. Ya. Izrael, et al. RUSSIAN, per, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

On the Diffraction of Sound Waves by a Grating of Elastic Plates, by V. Ya. Izrael, et al. RUSSIAN, per, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

On the Diffraction of Sound Waves by a Grating of Elastic Plates, by V. Ya. Izrael, et al. RUSSIAN, per, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

Approximate Solution of Some Nonstationary Boundary-Layer Problems with Allowance for a Turbulent Field, by Dzh. V. Sharikadze. 5 pp. RUSSIAN, per, Soobshcheniya Akad. Nauk Gruzii, Vol 45, No 1, 1967, pp 43-46. \*NASA TT F-12,932

On the Diffraction of Sound Waves by a Grating of Elastic Plates, by V. Ya. Izrael, et al. RUSSIAN, per, Problemy Nelineynoy Optiki, 1968, pp 1-144; 147-204; 205-270. AIR/FTD/MT-24-277-69

Measurement of Plasma Flow Rate with a Laser Pressure Pipe, by N. V. Tolstoy, et al. RUSSIAN, per, Teplotiz. Vysokaya Temperatur, Vol 7, No 4, 1969, pp 600-609. \*NASA TT F-12,768

Study of an Anomalous Gas Discharge Flow Meter, by N. V. Tolstoy. 7 pp. RUSSIAN, per, Teplotiz. Vysokaya Temperatur, Vol 7, No 4, 1969, pp 600-609. \*NASA TT F-12,771

Parameters of a Hydrogen Plasma in a Supersonic Spherical Source, by V. M. Gelfand, et al. 8 pp. RUSSIAN, per, Teplotiz. Vysokaya Temperatur, Vol 7, No 5, 1969, pp 610-614. \*NASA TT F-12,767

A Hydrostatic Bearing as a Source of Vibrations, by S. A. Ivanov. 6 pp. RUSSIAN, per, Trudy Moskov. Fizicheskogo Institut, No 172, 1967, pp 69-73. AIR/FTD/MT-24-277-69

Acceleration of Charged Particles in Interplanetary Plasma, by E. Ye. Kats, et al. RUSSIAN, per, Ukrainskiy Fizicheskiy Zhurnal, Vol 14, No 6, 1969, pp 1019-1022. \*NASA TT F-12,973

One Possible Mechanism for the Formation of Inhomogeneities in Interplanetary Plasma, by B. Ya. Kotsarenko. RUSSIAN, per, Ukrainskiy Fizicheskiy Zhurnal, Vol 14, No 12, 1969, pp 20-28. \*NASA TT F-12,746

The Shape of the Flow Separation Zone Induced by the Incidence of a Three-Dimensional Shock Wave on a Plate with Turbulent Boundary Layer, by Yu. A. Panov. 11 pp. RUSSIAN, per, Vestnik. Moscov. Universitet. Seriya I. Matematika, Mekhanika, No 1, 1969, pp 59-65. AIR/FTD/MT-24-277-69

Calculation of the Noises in a Matted Oscillating Rod Due to the Penetration of the Radiation of Pumping, by A. M. Kamen, L. A. Kotomtseva, 12 pp.  
RUSSIAN, per, Vestsi AN BSSR, Seriya Fiziko-Matematichnykh Navuk, No 3, 1968, pp 76-83.  
\*NASA TT F 12-357-89

Experimental Investigation of Nonstationary Heat Exchange in a Tube During Variation of the Gas Flow Rate, by B.M. Galitseyskiy, G.A. Dreytser, 12 pp.  
RUSSIAN, rpt. An BSSR, Vestsi, Seriya Fizika i Tekhnichnykh Navuk, Viki, No 2, 1967, pp 60-64.  
\*NASA TT F 12-233-69

Experimental Investigation of Nonstationary Heat Exchange in a Tube During Variation of the Thermal Flux, by B.M. Galitseyskiy, G.A. Dreytser, 13 pp.  
RUSSIAN, rpt. An BSSR, Vestsi, Seriya Fizika i Tekhnichnykh Navuk, Viki, No 2, 1967, pp 65-70.  
\*NASA TT F 12-235-69

Angular Distribution of Matter Vaporized by a Laser Beam, by Yu. A. Bykovskiy, A. G. Dudoladov.  
RUSSIAN, per, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 56, No 6, 1969, pp 1819-1822.  
Dept of Navy APL/JHU T-2394

The Self-Synchronization Made of Ruby and Neodymium-Glass Lasers in the Free-Generation Regime, by V. I. Malyshev.  
RUSSIAN, per, Zhurnal Eksperimental'noy i Teoreticheskoy Fiz., Vol 57, No 3, 1969, pp 819-826.  
\*Dept of Navy APL/JHU J-1484

Free Plasma Column in a High Frequency Field at High Pressure, by P. L. Kapitsa, 87 pp.  
RUSSIAN, per, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Moscow, Vol 57, No 6 (12), 1969, pp 1801-1866.  
JPRS 50157

Stability of Laminar Boundary Layer Over Membrane Type Deformed Surface, by V. V. Skirpachev.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 6, 1969, pp 52-56.  
\*NASA TT F 12,969

Structure of Low Velocity Supersonic Jet, by V. I. Gendzenko, et al.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 6, 1969, pp 110-115.  
\*NASA TT F 12,968

Investigations of the Interaction of a Spherical Shock Wave with Waves, by A. N. Ivanov, et al.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 6, 1969, pp 115-119.  
\*NASA TT F 12,967

Distribution of Concentration of Current Carriers in Semiconductor Specimen with the Hall Effect, by A. I. Anisimov, 11 pp.  
RUSSIAN, per, Zhurnal Tekhn. Fiz., Vol 22, No 7, 1952, pp 1146-1153.  
\*NASA TT F 12,698

Reflection Coefficient of a Gradually Changing Medium, by Shang Erh-ch'ang, Jen Lai-fa, 12 pp.  
CHINESE, per, Chung-kuo K'o-hsueh Chi-shu, Ta-hsueh Hsueh-pao, Peking, No 1, Feb 1965, pp 147-154.  
JPRS 50091

Evaporation Speed and Self-Diffusion Coefficient Determined the Isotope Exchange Method, by J. Kucera, 6 pp.  
CZECH, per, Ceskoslovensky Casopis pro Fysiku, 11, 1961, pp. 1-6.  
\*CFSTI TT 70-56041  
AVAILABLE FROM NBS ONLY

Measurement of Evaporation Rate and Attempt at Determining Self-Diffusion Coefficient of Ag by the Isotope Interchange Method, by J. Kucera, 10 pp.  
CZECH, per, Ceskoslovensky Casopis pro Fysiku, 14, 1964, pp. 176-185.  
\*CFSTI TT 70-56042  
AVAILABLE FROM NBS ONLY

A Radiometric Study of the Diffusion of Phosphor in Si Single Crystals, by Z. Joks, et al, 7 pp.  
CZECH, per, Ceskoslovensky Casopis Pro Fysiku, 16, 1966, pp. 419-425.  
\*CFSTI TT 70-56045  
AVAILABLE FROM NBS ONLY

An Autoradiographic Study of the Distribution of Phosphor Diffusing into a Si Single Crystal, by V. Rosicka, 4 pp.  
CZECH, per, Ceskoslovensky Casopis Pro Fysiku, Vol 16, 1966, pp. 455-458.  
\*CFSTI TT 70-56044  
AVAILABLE FROM NBS ONLY

Diffusion in Metals, by K. Volenik, 30 pp  
CZECH, per, Ceskoslovensky Casopis pro Fysiku, 16, 1966, pp. 465-494.  
\*CFSTI TT 70-56037  
AVAILABLE FROM NBS ONLY

The Study of Thermodynamic Properties of Metals, by B. Zitnansky, 14 pp.  
CZECH, per, Zvaracsky Sbornik 10, 1961, pp. 242-255.  
\*CFSTI TT 70-56047  
AVAILABLE FROM NBS ONLY

Interferometer Useable for Compression of Frequency-Modulated Pulses of Light, by Francois Gires, Pierre Tournois, 5 pp.  
FRENCH, per, Comptes Rendus 258, 1964, pp 6112-6115.  
AEC/UCRL-Tr-1405-70

Combined Stark and Zeeman Effects on the Hydrogenic Transitions of Neutral Helium, by C. Deutsch.  
FRENCH, per, J Quant Spectrosc Radiat Transfer, Vol 8, No 4, 1968, pp 1027-1059.  
\*AEC/ORNL-Tr-2295

Optical Properties of Heated Air. II. Integral Properties, 4000 to 20,000<sup>0</sup>K., by I. V. Avilova, L. M. Biberman, 12 pp.  
FRENCH, per, J Quant Spectrosc Radiative Transfer No 9, 1969, pp 113-122.  
AEC/LA-Tr-69-19

Electron Properties of the Hydrides of Ti-H and Zr-H Systems, by F. Ducastelle, et al.  
FRENCH, rpt, Office National D'Etudes et de Recherches Aerospatiales TP No. 718, 1969, 23 pp.  
\*NASA TT F 12,937

Elastic Constants in the Flux Line Lattice in Type II Superconductors, by R. Labush.  
FRENCH, per, Phys. Status Solide, Vol 19, No 2, 1967, pp 715-719.  
CSC  
C. E. trans 5170

Measurement of the Coefficient of Heat Transfer by Direct Convection between Gas and the Wall of a Small Furnace, by R. Labush, et al.,  
FRENCH, per, Rev. Gen. Therm., Vol 7, 3-4-6, 1968, pp 1029-1035.  
BISI 7321

The Stability of Gas Flames, by R. Morillon,  
FRENCH, per, Rev. Gen. Therm., Oct 7, 1968, pp 1029-1035.  
BISI 7321

Experimental and Theoretical Investigation of a Low Frequency Instability and Modified Pig Discharge, by F. Klen, 89 pp.  
GERMAN, rpt,  
NASA TT F-12,648

Quasi-One-Dimensional Nozzle Flows With Vibrational and Dissociational Nonequilibrium, by R. Robert.  
GERMAN, per, Deutsche Luft- und Raumfahrt, Report 70-01, 1970, 55 pp.  
\*NASA TT F 12,947

Experimental Determination of the Rate of Dissociation of Fluorine in a Shock Tube, by Th. Just, et al.  
GERMAN, per, Deutsche Luft- und Raumfahrt, Report No. 70-02, 1970, 35 pp.  
\*NASA TT F 12,946

The Electronic Structure of the O<sub>2</sub> Center II. Theoretical Considerations, by R. T. Shuey, H. R. Zeller.  
GERMAN, per, Helvetica Physica Acta, Vol 40, 1967, pp 873-886.  
Dept of Navy APL/JHU T-2398

Configuration of Interstitial Atoms in F.C.C. Crystals in Particular Copper, by A. Seeger, 20 pp.  
GERMAN, per, J. Phys. Chem. Solids, 23 1962, pp. 639-658  
\*CFSTI TT 70-58086  
AVAILABLE FROM NBS ONLY

Thermoeffusion in High Temperature Phases of Zr and Ti, by H.G. Feller, et al, 5 pp.  
GERMAN, per, J. Phys Chem Solids, 24, 1963, pp. 969-973.  
\*CFSTI TT 70-58083  
AVAILABLE FROM NBS ONLY

Molecular Theory of Diffusion, by  
W. Schrufer, 6 pp.  
GERMAN, per, Kolloid-Z., 150, 1957,  
pp. 34-39.  
\*CFSTI TT 70-58116  
AVAILABLE FROM NBS ONLY

Application of the Emission of Positive  
Ions for the Determination of Diffusion  
Constants in Solids, by I. Cornides, 1pp.  
GERMAN, per, Naturwiss., vol 45, no 6,  
1958, pp. 125-126.  
\*CFSTI TT 70-58105  
AVAILABLE FROM NBS ONLY

Interaction Force Between a Flux Line and Some  
Parallel Dislocations, by U. Krammer.  
GERMAN, per, Physica Status Solidi, Vol 34, No 1  
pp 81-94.  
\*NASA TT F 12,936

Measurement of the Volume Diffusion in  
Polycrystalline Zn, by W. Lange, et al  
12 pp.  
GERMAN, per, Physica Status Solidi, 1,  
1961, pp. 50-61.  
\*CFSTI TT 70-58090  
AVAILABLE FROM NBS ONLY

Estimate of the Activity Energies for  
Formation and Migration of Vacancies in  
Zinc, by B. Sprusil, 3 pp.  
GERMAN, per, Physica Status Solidi, 3 (2)  
1963, pp. 86-88.  
\*CFSTI TT 70-58089  
AVAILABLE FROM NBS ONLY

Measurement of the Grain-Boundary Diffusion  
of Ni-63 in Ni and Alpha-Fe, by W. Lange,  
et al. 9 pp.  
GERMAN, per, Phys. Stat. Sol., 5, 1964,  
pp. 63-71.  
\*CFSTI TT 70-58110  
AVAILABLE FROM NBS ONLY

Measurement of the Electron Emission with a  
Metallic-Surface Microscope, by Karl H. Gaukler,  
6 pp.  
GERMAN, per, Z Metallkunde, Vol 51, 1960,  
pp 463-466.  
AEC/UCRL-Tr-10434-69

Surface Diffusion During Sintering of  
Unpressed Powders, by K. Torkar, et al.  
7 pp.  
GERMAN, per, Z. Metallkde., 52, 1961  
pp. 209-215.  
\*CFSTI TT 70-58112  
AVAILABLE FROM NBS ONLY

The Theory of Thermodiffusion in Binary  
Multiphase Metals, by H. Weber, 10 pp.  
GERMAN, per, Z. Naturforschg., 18a, 1963  
pp. 1215-1224.  
\*CFSTI TT 70-58198  
AVAILABLE FROM NBS ONLY

Wave Mechanics and Half-Integral Quantization, by  
H. A. Kramers, 14 pp.  
GERMAN, per, Zeitschrift fur Physik, Vol 39,  
pp 828-840.  
Dept of Navy NIC Trans 3020

The Relative Stopping Power of Some Substances  
for  $\alpha$  -Particles up to 5MeV, by O. Fiedler,  
D. Ulrich, 5 pp.  
GERMAN, per, Z Phys, Vol 200, 1967, pp 493-498.  
AEC/ORNL-Tr-1861-70

High-Efficiency Ion Laser, by Herziger, W. Seeling,  
28 pp.  
GERMAN, per, Zeit fur Physik, Vol 219, No 1, 1969,  
pp 5-31.  
ACSI J-7681  
FSTC-HT-23-408-70

Electrodifussion in Free Solution and Charged  
Membranes, by R. Schlogl, 33 pp.  
GERMAN, per, Z Physik Chem (Frankfurt), No 5/6,  
1954, pp 305-339.  
AEC/ORNL-Tr-2059-70

On the Absorption Spectra of Negative Halogen  
Ions in Solution, by J. Franck, G. Scheibe, 9 pp.  
GERMAN, per, Z Phy Chem (Leipzig), Vol 139, 1928,  
pp 22-31.  
AEC/ORNL-Tr-1896-70

Diffusion of Ions and Electrons, by  
H. J. Oel, 19 pp.  
GERMAN, per, Z. Phys Chem, NF, 10, 1957  
pp. 165-183.  
\*CFSTI TT 70-58119  
AVAILABLE FROM NBS ONLY

The Continuous Measurement of the  
Kirkendall Effect in Metals, by W. Karger  
4 pp.  
GERMAN, per, Z. Phys Chem., N.F., 12, 1957  
pp. 8-12.  
\*CFSTI TT 70-58120  
AVAILABLE FROM NBS ONLY

On the Method of Measurement of Continuous  
Diffusion Processes in Solids, by  
W. Karger, 18 pp.  
GERMAN, per, Zeitschrift fur Physikalische  
Chemie Neue Folge, 14, 1958, pp. 88-105.  
\*CFSTI TT 70-58104  
AVAILABLE FROM NBS ONLY

Surface Oxidation Phenomena on Ge Single  
Crystal surfaces, II Investigation of the  
Kinetics of Oxygen Absorption, by J. Kiraly  
7 pp.  
HUNGARIAN, per, Magy. Kem. Folyoirat, vol 74  
1968, pp. 553-559  
\*CFSTI TT 70-56032

Surface Oxidation Phenomena of Ge Single  
Crystal Surfaces. III. Temperature Dependence  
of the Absorption Rate and the Problem  
of the Kink Point in Linearization,  
by J. Kiraly, et al, 8 pp.  
HUNGARIAN, per, Magy. Kem. Polyoirat, vol 7,  
1968, pp. 571-578.  
\*CFSTI TT 70-56033

Hydrogen Permeation Through Iron Sheets in  
the Temperature Range 20-90° C, by  
W. Raczynski, 20 pp.  
POLISH, per, Archiwum Hutnictwa, 3, 1958  
pp. 59-78.  
\*CFSTI TT 70-55078

Contribution to the Phenomena of Carburizing of Fe, by M. Zumer, et al, 9 pp.  
SERBO-CROATION, per, Rudarsko-Metallurski  
Zbornik, no 1, 1955, pp. 25-33.  
 \*CFSTI TT 70-56040

1. 1944-1945  
2. 1946-1947  
3. 1948-1949  
4. 1950-1951  
5. 1952-1953  
6. 1954-1955  
7. 1956-1957  
8. 1958-1959  
9. 1960-1961  
10. 1962-1963  
11. 1964-1965  
12. 1966-1967  
13. 1968-1969  
14. 1970-1971  
15. 1972-1973  
16. 1974-1975  
17. 1976-1977  
18. 1978-1979  
19. 1980-1981  
20. 1982-1983  
21. 1984-1985  
22. 1986-1987  
23. 1988-1989  
24. 1990-1991  
25. 1992-1993  
26. 1994-1995  
27. 1996-1997  
28. 1998-1999  
29. 2000-2001  
30. 2002-2003  
31. 2004-2005  
32. 2006-2007  
33. 2008-2009  
34. 2010-2011  
35. 2012-2013  
36. 2014-2015  
37. 2016-2017  
38. 2018-2019  
39. 2020-2021  
40. 2022-2023  
41. 2024-2025  
42. 2026-2027  
43. 2028-2029  
44. 2030-2031  
45. 2032-2033  
46. 2034-2035  
47. 2036-2037  
48. 2038-2039  
49. 2040-2041  
50. 2042-2043  
51. 2044-2045  
52. 2046-2047  
53. 2048-2049  
54. 2050-2051  
55. 2052-2053  
56. 2054-2055  
57. 2056-2057  
58. 2058-2059  
59. 2060-2061  
60. 2062-2063  
61. 2064-2065  
62. 2066-2067  
63. 2068-2069  
64. 2070-2071  
65. 2072-2073  
66. 2074-2075  
67. 2076-2077  
68. 2078-2079  
69. 2080-2081  
70. 2082-2083  
71. 2084-2085  
72. 2086-2087  
73. 2088-2089  
74. 2090-2091  
75. 2092-2093  
76. 2094-2095  
77. 2096-2097  
78. 2098-2099  
79. 2100-2101  
80. 2102-2103  
81. 2104-2105  
82. 2106-2107  
83. 2108-2109  
84. 2110-2111  
85. 2112-2113  
86. 2114-2115  
87. 2116-2117  
88. 2118-2119  
89. 2120-2121  
90. 2122-2123  
91. 2124-2125  
92. 2126-2127  
93. 2128-2129  
94. 2130-2131  
95. 2132-2133  
96. 2134-2135  
97. 2136-2137  
98. 2138-2139  
99. 2140-2141  
100. 2142-2143  
101. 2144-2145  
102. 2146-2147  
103. 2148-2149  
104. 2150-2151  
105. 2152-2153  
106. 2154-2155  
107. 2156-2157  
108. 2158-2159  
109. 2160-2161  
110. 2162-2163  
111. 2164-2165  
112. 2166-2167  
113. 2168-2169  
114. 2170-2171  
115. 2172-2173  
116. 2174-2175  
117. 2176-2177  
118. 2178-2179  
119. 2180-2181  
120. 2182-2183  
121. 2184-2185  
122. 2186-2187  
123. 2188-2189  
124. 2190-2191  
125. 2192-2193  
126. 2194-2195  
127. 2196-2197  
128. 2198-2199  
129. 2200-2201  
130. 2202-2203  
131. 2204-2205  
132. 2206-2207  
133. 2208-2209  
134. 2210-2211  
135. 2212-2213  
136. 2214-2215  
137. 2216-2217  
138. 2218-2219  
139. 2220-2221  
140. 2222-2223  
141. 2224-2225  
142. 2226-2227  
143. 2228-2229  
144. 2230-2231  
145. 2232-2233  
146. 2234-2235  
147. 2236-2237  
148. 2238-2239  
149. 2240-2241  
150. 2242-2243  
151. 2244-2245  
152. 2246-2247  
153. 2248-2249  
154. 2250-2251  
155. 2252-2253  
156. 2254-2255  
157. 2256-2257  
158. 2258-2259  
159. 2260-2261  
160. 2262-2263  
161. 2264-2265  
162. 2266-2267  
163. 2268-2269  
164. 2270-2271  
165. 2272-2273  
166. 2274-2275  
167. 2276-2277  
168. 2278-2279  
169. 2280-2281  
170. 2282-2283  
171. 2284-2285  
172. 2286-2287  
173. 2288-2289  
174. 2290-2291  
175. 2292-2293  
176. 2294-2295  
177. 2296-2297  
178. 2298-2299  
179. 2300-2301  
180. 2302-2303  
181. 2304-2305  
182. 2306-2307  
183. 2308-2309  
184. 2310-2311  
185. 2312-2313  
186. 2314-2315  
187. 2316-2317  
188. 2318-2319  
189. 2320-2321  
190. 2322-2323  
191. 2324-2325  
192. 2326-2327  
193. 2328-2329  
194. 2330-2331  
195. 2332-2333  
196. 2334-2335  
197. 2336-2337  
198. 2338-2339  
199. 2340-2341  
200. 2342-2343  
20

Самостоятельно в издательстве, по  
д. 1. 1977 г. 20 л.  
Иванов, И. Судно-техническое обеспечение  
морского флота Советского Союза. М.: ВМФ,  
1977. 120 с. 100 000 экз. 100 000 экз.  
Иванов, И. Судно-техническое обеспечение  
морского флота Советского Союза. М.: ВМФ,  
1977. 120 с. 100 000 экз. 100 000 экз.

1. Prilozhenie k "Obozreniyu na Turbinu Aviatransporta"  
in Obozreniyu Aviatransporta, by  
 A. V. Kopylovskiy. 195 pg.  
 2. Prilozhenie k "Obozreniyu na Turbinu Aviatransporta"  
in Turbinu v Aviatransporte, Izdatel'stvo  
 Aviatsiya, 1965, pp. 1-200.  
 YAIR/FR/HR-23-637-08

4. Thermodynamic and Ballistic Principles for the Design of Solid-Propellant Rocket Engines (Selected Chapters), by B. V. Orlov, Yu. S. Mazin. 276 pp. Moscow, Termodinamicheskoye i Ballisticheskoye Osnovy Proektirovaniya Rakety s Tverdogo Topliva (Thermodyn. and Ballistic Principles for the Design of Solid-Propellant Rocket Engines), 1968, pp 1-4; 130-137; 450-536. AD7475/AM-29-288-69

74. Systems for Deflection of the Jet Streams of Turbo-Jet Engines, by A. A. Svyatogorov, K. N. Popov, et al. 202 pp. RUSSIAN, bk. Ustroystva dlya Otkloneniya Reaktivnykh Strui Turboreaktivnykh Dvigatelyey, 1968, ZNAK 77 F-603

1. Material stresses in nozzle plates of 12  
mm diameter, of L. I. Kurik, A. A. Tikhonov,  
et al. 12 pp.  
 2. Stress, Str., Mesovozrozhdeniye i deformatsiya  
svetovodnykh po topologii prochnosti i struk-  
turalnykh elementov pri khraneni i is-  
pol'zovanii, 4th, Rev. "Soyuzproekt" Literaturny  
i konstruktsionnykh elementov literatury, 1967,  
 pp. 407-417  
 3. 1.4/12/12-23-12-69

Study of the Plastic Deformation of Nonuniformly  
Loaded Rotating Disks, by V. A. Lazarenko,  
I. A. Kozlov, et al. 7 pp.  
ISSN: 0013, Vsesoyuznyy Nauchno-Tekhnicheskoy  
Soveshchaniye po Voprosam Prochnosti Materialov  
i Konstruktsionnykh Elementov pri Vysokom Temperatur-  
aturam, 4th, Kiev. Temperopromot' Materialov  
i Konstruktsionnykh Elementov Materialy, 1967,  
pp. 460-465.  
All-Union/Int-23-12-69

Characteristics of the Soviet Union's Space Program, by A. A. Koshchunov, 17 pp.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 4-6.  
\*NASA TT F 12,943

Attitude Evaluation, by G. A. Koshchunov, 7 pp.  
Subject Installed Under a Wing, by G. A. Koshchunov, 7 pp.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 4-6.  
\*NASA TT F 12,943

Deflagration of Solid and Hybrid Propellants, by A. van Tiggelen, J. Burger.  
FRENCH, per, Revue de l'Institut Français du Pétrole et Annales des Combustibles Liquides, Vol 21, No 5, 1966, pp 816-868.  
Dept of Navy/APL/JHU T-2393

Application of Temperature and High Temperature Resistant Steels and Alloys in Steam and Gas Turbine Design, by D. Koshchunov, et al.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 2, 1969, pp 344-352.  
\*NASA TT F 12,932

Application of High Temperature Materials in Aircraft Jet Engines, by D. Koshchunov, et al.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 2, 1969, pp 335-343.  
\*NASA TT F 12,931

Process and Device to Eliminate the Carbon Deposit in the Combustion Chamber of a Combustion Engine, by Laurence W. Becker, 7 pp.  
GERMAN, Patent No 860,434, 22 Dec 1952.  
ACSI J-8057  
ID 2204002470

#### Space Technology

Man in Space, by G. Titov.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 4-6.  
\*NASA TT F 12,948

Chronicle of the Space Era, by A. Krylov.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 40-41.  
\*NASA TT F 12,950

Artificial Earth Satellites, 14 pp.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 10, 1969, pp 4-6.  
\*NASA TT F 12,948

Passive Elements in the Design of a Spacecraft for Scientific Mission, by A. A. Koshchunov, 7 pp.  
RUSSIAN, per, Aviatsiya i Kosmonavtika, No 2, 1969, pp 246-259.  
\*NASA TT F 12,939

Optimization of the Passive Descent Trajectory of a Flight Vehicle in the Earth's Atmosphere in Terms of a Criterion Linked With the Weight of the Coolant of the Internal Cooling System, by A. A. Koshchunov.

RUSSIAN, per, Issledovaniya po Dinamike Poleta, No 2, 1969, pp 246-259.  
\*NASA TT F 12,939

Science in the Year 2000, by E. G. Koshchunov.  
RUSSIAN, bk, Nauka v 2000 Godu, 1969, pp 171-174.  
\*NASA TT F 12,741

Cosmic Rays and the Terrestrial Atmosphere, by E. G. Koshchunov, 20 pp.  
RUSSIAN, per, Priroda, No 5, 1969, pp 10-16.  
\*NASA TT F 12,755

Conditions for Life in the Universe, by V. G. Fesenkov, 17 pp.  
RUSSIAN, per, Priroda, Moscow, No 1, 1970, pp 20-27.  
JPRS 50185

The Search for Quarks, by Ye. L. Feynberg, 13 pp.  
RUSSIAN, per, Priroda, Moscow, No 1, 1970, pp 28-33.  
JPRS 50185

Color Survey of Moon and Earth from Space, by V. D. Bol'shakov, N. P. Lavrova, 6 pp.  
RUSSIAN, per, Priroda, Moscow, No 1, 1970, pp 66-69.  
JPRS 50185

Analytical Optimization of the Orbit of a Station Receiver of a Geostationary Satellite, by V. G. Koshchunov.  
RUSSIAN, per, Trudy National'nykh Institutov Issledovaniy Aerokosmosa, 1969, pp 1-11.  
\*ACSI J-8057



Scientific  
Miscellaneous (Contd)

Visit to the Space Coordination-Computation Center, by Andrey Yermolin, 5 pp.  
RUSSIAN, per, Ogonek, Moscow, No 43, Oct 1969, pp 25-26.  
JPRS 49951

Academician L. I. Sedov; Interviewed on Space Research, by Leonid Ivanovich Sedov, 5 pp.  
RUSSIAN, per, USA: Economics, Politics, Ideology, Moscow, No 1, Jan 1970, pp 73-75.  
JPRS 49934

Directional Antenna for Reception of 360 MHz Satellite Signals, by Janusz Sator, 6 pp.  
POLISH, per, Prace Instytutu Tele i Radio-technicznego, Warsaw, No 2, 1969, pp 56-61.  
JPRS 50149

#### Miscellaneous

Soviet Scientists Discuss Social Obligations, by M. Lavrent'yev, 9 pp.  
RUSSIAN, per, Agitator, Moscow, No 24, Dec 1969, pp 19-22.  
JPRS 50096

Center for Scientific Ideas Discussed, by A. Sadykov, 10 pp.  
RUSSIAN, per, Ekonomika i Zhizn', Tashkent, No 9, Sept 1969, pp 34-40.  
JPRS 50067

Patterns of Development of Scientific Achievements in USSR, by M. Millionshchikov, 7 pp.  
RUSSIAN, np, Izvestiya, Moscow, 4 Sept 1969, pp 1-3.  
JPRS 50105

Work of Academy of Medical Sciences Reviewed, 7 pp.  
RUSSIAN, np, Meditsinskaya Gazeta, Moscow, 19 Dec 1969, p 3.  
JPRS 50074

The Scientific-Technical Revolution and its Characteristics, by I. Artobolevskiy, 11 pp.  
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 21 Jan 1970, pp 1, 3, 3.  
JPRS 50063

#### Scientific Miscellaneous (Contd)

USSR Academy of Sciences Needs Division of Technical Sciences, by L. Chukhanov, 5 pp.  
RUSSIAN, np, Trud, Moscow, 11 Nov 1969, p 3.  
JPRS 50105

Scientific Research in Soviet Agricultural Institutes, by S. G. Petrov, L. I. Rozko, 5 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, Moscow, No 8, 1969, pp 50-52.  
JPRS 50039

Development of Science Research in Jazes Urged, by V. P. Yelyutin, 8 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, Moscow, No 9, 1969, pp 45-52.  
JPRS 49964

Vuz Scientists Work in Science and Industry, by V. I. Krutov, 9 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, Moscow, No 9, 1969, pp 52-57.  
JPRS 49964

In Memory of Boris Sozontovich Lukash, by P. A. Driyagin.  
RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 6(53), 1968, pp 1087-1090.  
Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 106  
On Loan

A Method of Evaluating the Effectiveness of Basic Research Laboratories, by Dominique Verqueze.  
5 pp.  
FRENCH, np, Le Monde (Paris), 18 Dec 1969, p. 17  
NASA TT 1-12,814

Application of Ergonomics in Industry, by A. Samalata,  
GERMAN, per, Arbeit und Technik, Vol 24, No 1, 1969, pp 97-111.  
\*FBI 1969

Travel Report on the Visit of an East German Inland Fisheries Study Delegation to the USSR, by H. W. Blume.  
GERMAN, per, Deutsche Fischerei Zeitung, Vol 16, No 9, 1969, pp 253-265.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 114

Scientific  
Miscellaneous (Contd)

Defense Ministry Issues Awards for Scientific  
work, 6 pp.  
GERMAN, per, Militartechnik, East Berlin,  
Dec 1969, pp 570-576.  
JPRS 50064

Scientific Exploration in the Sinai Continues,  
6 pp.  
YIDDISH, per, Folk um Zion, Jerusalem, No 5,  
Jan 1970, pp 44-47.  
JPRS 50037

Government Calls for New Long-Term Science Plan,  
7 pp.  
HUNGARIAN, per, Akademiai Kozlony, Budapest,  
17 Dec 1969, pp 199-202.  
JPRS 49940

1970-1971 Scientific Conference Schedule Planned,  
7 pp.  
HUNGARIAN, per, Akademiai Kozlony, Budapest,  
17 Dec 1969, pp 204-208.  
JPRS 49940

Academy Presents Annual Awards to Scientists,  
9 pp.  
HUNGARIAN, per, Akademiai Kozlony, Budapest,  
No 3, 19 Feb 1970, pp 23-26.  
JPRS 50190

Biographic Sketches of New Academy Members,  
9 pp.  
HUNGARIAN, np, Magyar Nemzet, Budapest,  
8 Feb 1970, p 8.  
JPRS 50013

Organizational Changes Made in Academy of  
Sciences, 11 pp.  
POLISH, per, Dziennik Ustaw, Warsaw, 17 Feb  
1970, No 3, Item 12, pp 21-24.  
JPRS 50200

State of Cod Resources in the Area of the Fishery  
Convention on the Northwest Atlantic, by E. Stanek.  
POLISH, per, Technika i Gospodarka Morska, Vol 19,  
No 8-9/218-219, 1969, pp 381-384.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Office of Foreign Fisheries  
A-34-Dec 1969-No 127

Scientific  
Miscellaneous (Contd)

General Results of the Cruise of the Trawler  
M/N "Galati" in the Northwest Atlantic  
(1967) by T.T. Nalbant, 14 pp.  
ROMANIAN, per, Buletinul Institutului de  
Cercetari si Proiectari Piscicole, vol 27  
no 2, 1968, pp. 59-72.  
\*USDI/BCF TT 70-56029

Law on Organization of Scientific Research Cited,  
9 pp.  
ROMANIAN, per, Buletinul Oficial, Bucharest,  
Part 1, No 148, 19 Dec 1969, pp 1209-1211.  
JPRS 49940

1 5 6  
2 3 4

INFORMATION REPORTS

APRIL

OF COVER-TO-COVER TRANSLATIONS

Radiofizika, Vol. 10, No. 1, 1967.  
Radio Physics, Vol. 10, No. 1, 1967.

Radiofizika, Vol. 10, No. 1, 1967.  
Radio Physics, Vol. 10, No. 1, 1967.

Radiofizika, Vol. 10, No. 2, 1967.  
Radio Physics, Vol. 10, No. 2, 1967.

Radiofizika, Vol. 10, No. 2, 1967.  
Radio Physics, Vol. 10, No. 2, 1967.

Radiofizika, Vol. 10, No. 3, 1967.  
Radio Physics, Vol. 10, No. 3, 1967.

Radiofizika, Vol. 10, No. 3, 1967.  
Radio Physics, Vol. 10, No. 3, 1967.

Radiofizika, Vol. 10, No. 4, 1967.  
Radio Physics, Vol. 10, No. 4, 1967.

Radiofizika, Vol. 10, No. 4, 1967.  
Radio Physics, Vol. 10, No. 4, 1967.

Radiofizika, Vol. 10, No. 5, 1967.  
Radio Physics, Vol. 10, No. 5, 1967.

Radiofizika, Vol. 10, No. 5, 1967.  
Radio Physics, Vol. 10, No. 5, 1967.

Radiofizika, Vol. 10, No. 6, 1967.  
Radio Physics, Vol. 10, No. 6, 1967.

Radiofizika, Vol. 10, No. 6, 1967.  
Radio Physics, Vol. 10, No. 6, 1967.

Radiofizika, Vol. 10, No. 7, 1967.  
Radio Physics, Vol. 10, No. 7, 1967.

Radiofizika, Vol. 10, No. 7, 1967.  
Radio Physics, Vol. 10, No. 7, 1967.

Radiofizika, Vol. 10, No. 8, 1967.  
Radio Physics, Vol. 10, No. 8, 1967.

Radiofizika, Vol. 10, No. 8, 1967.  
Radio Physics, Vol. 10, No. 8, 1967.

Radiofizika, Vol. 10, No. 9, 1967.  
Radio Physics, Vol. 10, No. 9, 1967.

Radiofizika, Vol. 10, No. 9, 1967.  
Radio Physics, Vol. 10, No. 9, 1967.

Radiofizika, Vol. 10, No. 10, 1967.  
Radio Physics, Vol. 10, No. 10, 1967.

Radiofizika, Vol. 10, No. 10, 1967.  
Radio Physics, Vol. 10, No. 10, 1967.

Radiofizika, Vol. 10, No. 11, 1967.  
Radio Physics, Vol. 10, No. 11, 1967.

Radiofizika, Vol. 10, No. 11, 1967.  
Radio Physics, Vol. 10, No. 11, 1967.

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Polski Przegląd Radiologii i Medycyny Nuklearnej,  
Vol. 15, No. 3, 1969.  
JSTI TT-64-5003

Polski Tygodnik Lekarski, Vol. 24, No. 14, 1969.  
JSTI TT-64-5006, Vol. 2, No. 6, 1969

Radiotekhnika i Elektronika, Vol. 14, No. 9, 1969.  
Scripta Publishing Corporation

Steklo i Keramika, Vol. 22, No. 7, 1969.  
CB

Tekhnika i Vooruzheniye, No. 1, 1970.  
\*ACSI J-7906

Tekhnika i Vooruzheniye, No. 2, 1970.  
\*ACSI J-7917

Tsvetnye Metally, Vol. 41, No. 5, 1968.  
Primary Sources  
Vol. 9, No. 5, 1968

Tyl i Shazheniye Sovetskikh Vooruzheniykh Sil,  
No. 2, 1970.  
\*ACSI J-8179

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

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Soviet Union

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Soviet Union

Optika i Spektroskopiya, Vol. 14, No. 9, 1969.  
Soviet Union

Journal of Technical Physics, Vol. 1, No. 1, 1931.

Journal Tekhnicheskoi Fiziki, Vol. 1, No. 1, 1931.  
American Institute of Physics  
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EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ (ctnh <sup>-1</sup> )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arctg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

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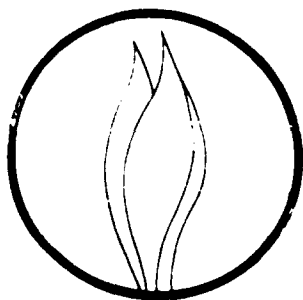
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#### EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ (ctnh <sup>-1</sup> )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arctg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

# GLASS AND CERAMICS

A translation of *Steklo i Keramika*

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July-August, 1969

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## RUSSIAN ABBREVIATIONS IN TEXT

CC CPSU..... Central Committee, Communist Party, Soviet Union.  
Glavenergo..... Main Power Administration.  
Glavmed..... Main Administration of the Copper Industry.  
Gosplan..... State Planning Committee of the Council of Ministers of the USSR.  
GOST..... All-Union State Standard.  
IGDA.N..... Mining Institute of the Academy of Sciences of the USSR.  
Mekhanobr..... Scientific Research Institute for Mechanical Concentration of Minerals.  
NTO..... Scientific and Technical Division.  
TsIIN TsM..... Central Office for Information on Non-Ferrous Metals.  
VAMI..... All-Union Aluminum and Magnesium Industry.  
VTSPS..... All-Union Central Council of Trade Unions.

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Central Intelligence Agency



Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen  
Deputy Director for Operations  
Defense Technical Information Center  
7725 John J. Kingman Road  
Suite 0944  
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral  
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

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## Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed  
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0866011	78-03109A	63	1	8	145	Consolidated Translation Survey Through 31 January 1970	1/31/1970	237	Approved For Release	3/25/2004
AD0866691	78-03109A	64	1	1	146	Consolidated Translation Survey Through 28 February 1970	2/28/1970	237	Approved For Release	3/25/2004
AD0868214	78-03109A	64	1	2	147	Consolidated Translation Survey Through 31 March 1970	3/31/1970	222	Approved For Release	3/25/2004
AD0869588	78-03109A	64	1	3	148	Consolidated Translation Survey Through 30 April 1970	4/30/1970	225	Approved For Release	3/25/2004
AD0871388	78-03109A	64	1	4	149	Consolidated Translation Survey Through 31 May 1970	5/31/1970	286	Approved For Release	3/25/2004
AD0872361	78-03109A	64	1	5	150	Consolidated Translation Survey Through 30 June 1970	6/30/1970	339	Approved For Release	3/25/2004
AD0873815	78-03109A	64	1	6	151	Consolidated Translation Survey Through 31 July 1970	7/31/1970	274	Approved For Release	3/25/2004
AD0834385	78-03109A	47	1	4	17	Consolidated Translation Survey For May 1959	6/17/1959	193	Approved For Release	3/25/2004
AD0834386	78-03109A	47	1	5	18	Consolidated Translation Survey For June 1959	7/17/1959	177	Approved For Release	3/25/2004
AD0834387	78-03109A	47	1	6	19	Consolidated Translation Survey For July 1959	8/24/1959	254	Approved For Release	3/25/2004
AD0834388	78-03109A	47	1	7	20	Consolidated Translation Survey For August 1959	9/18/1959	209	Approved For Release	3/25/2004
AD0834389	78-03109A	47	1	8	21	Consolidated Translation Survey For September 1959	10/20/1959	261	Approved For Release	3/25/2004
AD0834491	78-03109A	47	1	9	22	Consolidated Translation Survey For October 1959	11/16/1959	181	Approved For Release	3/25/2004
AD0834492	78-03109A	47	1	10	23	Consolidated Translation Survey For November 1959	12/22/1959	214	Approved For Release	3/25/2004
AD0834493	78-03109A	47	1	11	24	Consolidated Translation Survey For December 1959	1/20/1960	202	Approved For Release	3/25/2004
AD0834494	78-03109A	47	1	12	25	Consolidated Translation Survey For January 1960	2/25/1960	198	Approved For Release	3/25/2004
AD0834495	78-03109A	47	1	13	26	Consolidated Translation Survey For February 1960	2/1/1960	248	Approved For Release	3/25/2004
AD0834496	78-03109A	48	1	1	27	Consolidated Translation Survey For March 1960	3/1/1960	223	Approved For Release	3/25/2004
AD0834497	78-03109A	48	1	2	28	Consolidated Translation Survey For April 1960	4/1/1960	287	Approved For Release	3/25/2004
AD0834498	78-03109A	48	1	3	29	Consolidated Translation Survey For May 1960	5/1/1960	312	Approved For Release	3/25/2004
AD0834499	78-03109A	48	1	4	30	Consolidated Translation Survey For June 1960	6/1/1960	277	Approved For Release	3/25/2004
AD0834500	78-03109A	48	1	5	31	Consolidated Translation Survey For July 1960	7/1/1960	186	Approved For Release	3/25/2004
AD0834501	78-03109A	48	1	6	32	Consolidated Translation Survey For August 1960	8/1/1960	317	Approved For Release	3/25/2004
AD0834502	78-03109A	48	1	7	33	Consolidated Translation Survey For September 1960	9/1/1960	287	Approved For Release	3/25/2004
AD0834503	78-03109A	48	1	8	34	Consolidated Translation Survey For October 1960	10/1/1960	322	Approved For Release	3/25/2004
AD0834504	78-03109A	48	1	9	35	Consolidated Translation Survey For November 1960	11/1/1960	289	Approved For Release	3/25/2004